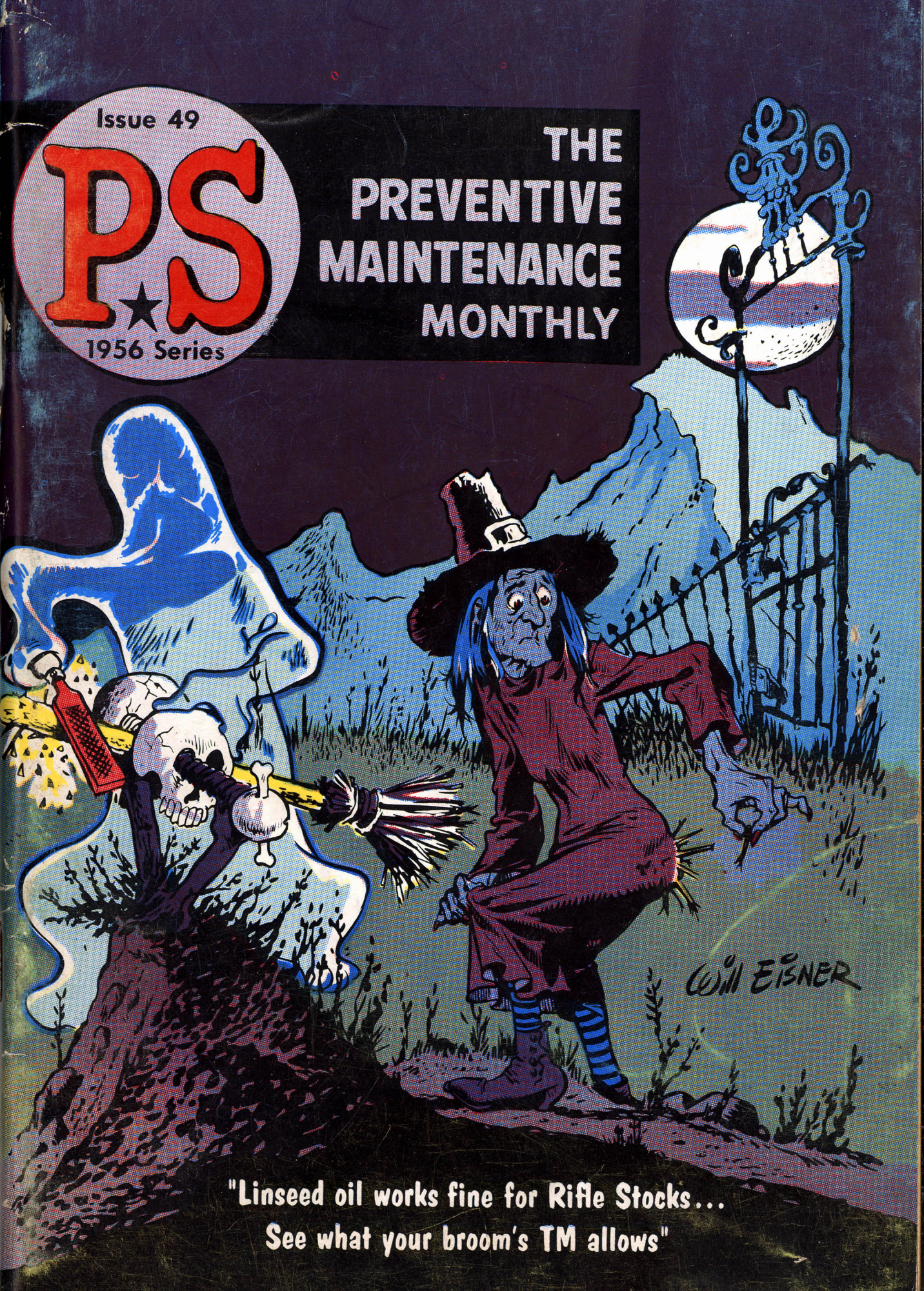
Issue 49
PS
1956 Series
THE PREVENTIVE MAINTENANCE MONTHLY
WILL EISNER
"Linseed oil works fine for Rifle Stocks...
See what your broom's TM allows"

No Sweat Getting 'Em Now...

"How in the %#"!* do I get that TM I need?"

That's one of the big questions always asked by operators and mechanics who want to do their maintenance jobs but don't know how to get the publications they need. But now your troubles are over. The army has come up with a new method for getting those much-needed publications to you—the man who really needs 'em and uses 'em. In addition to TM's, this new method'll get you Supply Manuals, Lubrication Orders, Technical Bulletins, Supply Bulletins and Modification Work Orders.

How does it work? Draw yourself a frosty one, have a pretzel, and lend an ear. You now get your publications just like you get your parts. Yep, that's right—same channels as you do your parts. This means if you're hurtin' for an Ordnance publication, you order it thru your Ordnance Property Officer. If it's for Engineer equipment that you're missing a publication, order thru your Engineer Property Officer. And right on down the line with the other technical services.

Technical service installation property officers (let's call 'em TSIPO's) are responsible for:

1. Automatic distribution of TM's, SM's, LO's, TB's, SB's, and MWO's to the using unit (that's you.)
2. Automatic distribution of any new or revised publications.
3. Replacing all maintenance publications you've worn out or lost.
4. Making sure you have the right kind and right amount of publications on hand to take care of your equipment like you should.

If you're overseas you get your publications the same way.

Your TSIPO is really an important guy. He not only can tell you what publications are available in your area, but he also knows just what publications you can put your mitts on . . . and what new publications have rolled off the press and what old publications have been revised.

Of course, you still requisition publications on DA Form 17.

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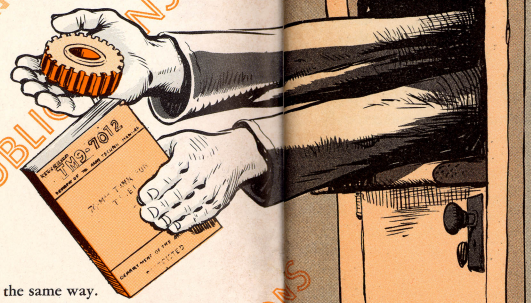

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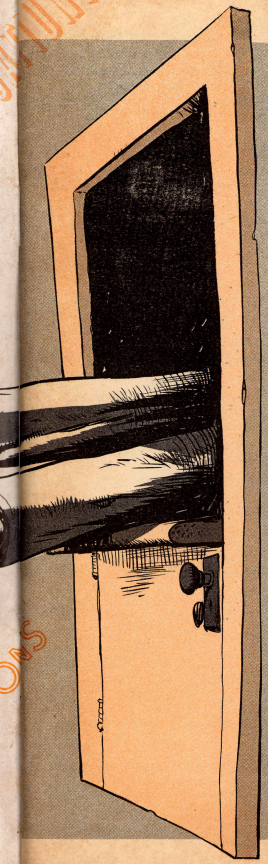

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KEEPING THOSE VEHICLES IN

KEEPING THOSE VEHICLES IN TUNE

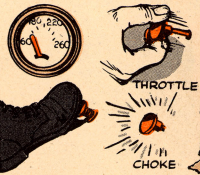
The M-Series Tactical Wheeled Vehicles Herewith Presented Formulae for the Preventive Maintenance of ailments that burden said Motor Driven Devices

Ye Formula on Compression

First off, after lifting the hood, take out the spark plugs and lay them aside on a clean surface.

Then take compression gage (Ord Stock No. 41-G-124) from your second echelon tool kit and go from cylinder to cylinder checking compression. Meanwhile your buddy's cranking the engine (at least four complete revolutions) until you get a reading on the gage meter.

During test, throttle and choke should be opened all the way (choke knob on dash pushed all the way in) and the engine should be at normal operating temperature..



Beware: Good batteries are needed since a true test depends on engine cranking speed. To make sure of an accurate reading recheck first cylinder after checking the others.

If this cylinder checks lower than the first time, the batteries have weakened. The readings then for the other cylinders were probably lower than what they really are because of low cranking speed. If that's the way she shows up, check her again, this time with fully charged batteries.

Ye Mystic Readings on Compression Chart

VEHICLE SERIES	G740	G758	G741	G742	G749	G744
MINIMUM ALLOWABLE COMPRESSION (PSI)	70	100	90	85	98	98
MAXIMUM PRESSURE VARIATION FROM HIGH TO LOW CYLINDER (PSI)	10	10	10	10	30 - 40	10

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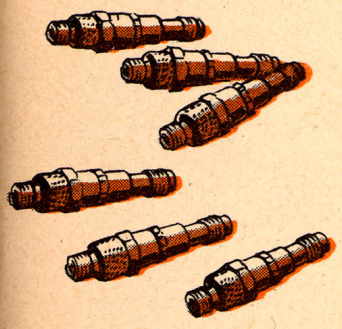

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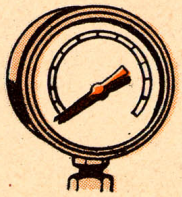

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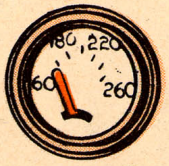

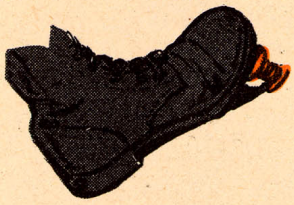

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If the difference between the high and low cylinders is within the maximum pressure variation spec, you're OK. But if reading is outside the limits, your truck's due for some engine work.

To find out whether it's your rings or valves that are floozing, make the "wet" test. Drop a teaspoon of engine oil into the cylinder. Oil seals off any leak around the rings.

If compression comes up, you know the trouble's with your rings.

If the compression doesn't come up, it's your valves.

Valve Checking

Check your valves and make sure they're adjusted just right. Valves set with not enough clearance have a good chance of burning, while valves set with too much clearance raise a racket and take away from the power of the vehicle.

Ye Mystic Numbers For Valve Checking

VEHICLE SERIES	G740	G758	G741	G742	G749	G744
INTAKE	.016	.018	.010	.014 - 016	.012	.020
EXHAUST	.016	.016	.014	.014 - 016	.020	.024

ONE MUST BE CAREFUL WITH THESE INTRICATE MECHANISIMS, FAULTY EQUIPMENT WILL CAUSE HEARTACHE AND HEADACHE ...BE PREPARED AT ALL TIMES TO PERFORM THOSE REPAIRS THAT WILL AID THE SMOOTH OPERATION OF YOUR VEHICLE!

HMM... WOTTA OPPORTUNITY!

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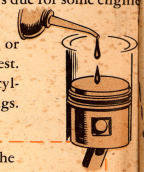

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AHEM... YES I SEE.... KINDLY OLD WITCH... HAST A CURE FOR A PERSONAL ...ER.... HEART AILMENT?

Ailing Spark Plugs

It is time to return now to the spark plugs you laid aside. First look down the top of the plug to be sure the porcelain isn't cracked. If it is, get a new plug.

Turn the plug to the electrode side. The insulator there will tell you whether your plugs are operating within the normal heat range, running too hot or too cold.

Normal Heat Range Signs

INSULATOR TAN OR BROWN—OK

HEAVY GRAYISH-TAN—USED LONGER TIME —OK

GRAYISH-TAN—USED FOR SHORT TIME—OK

DULL RUST-BROWN—READY FOR CHANGE

White? Too Hot — Caused by:

1. Plugs not tight enough in cylinder head, or a distorted gasket in valve
2. Valves not seated properly
3. Air-fuel mixture too lean
4. Ignition timing out of commission
5. Wrong heat range plugs (check SNL)
6. Water leaking into combustion chamber

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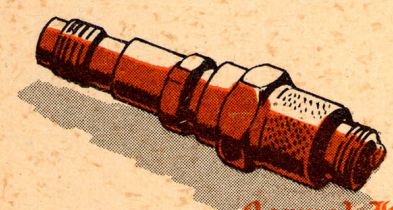

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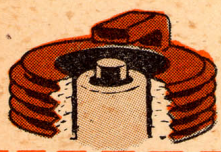

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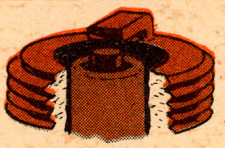

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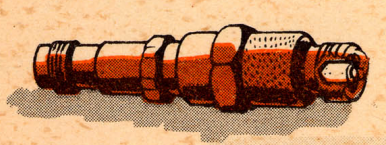

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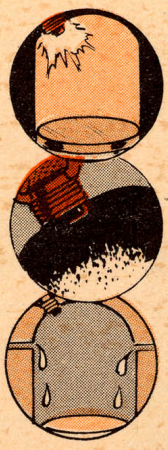
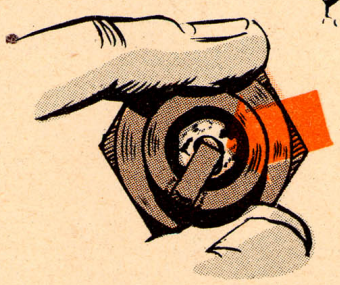


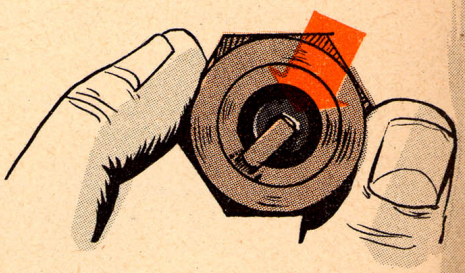


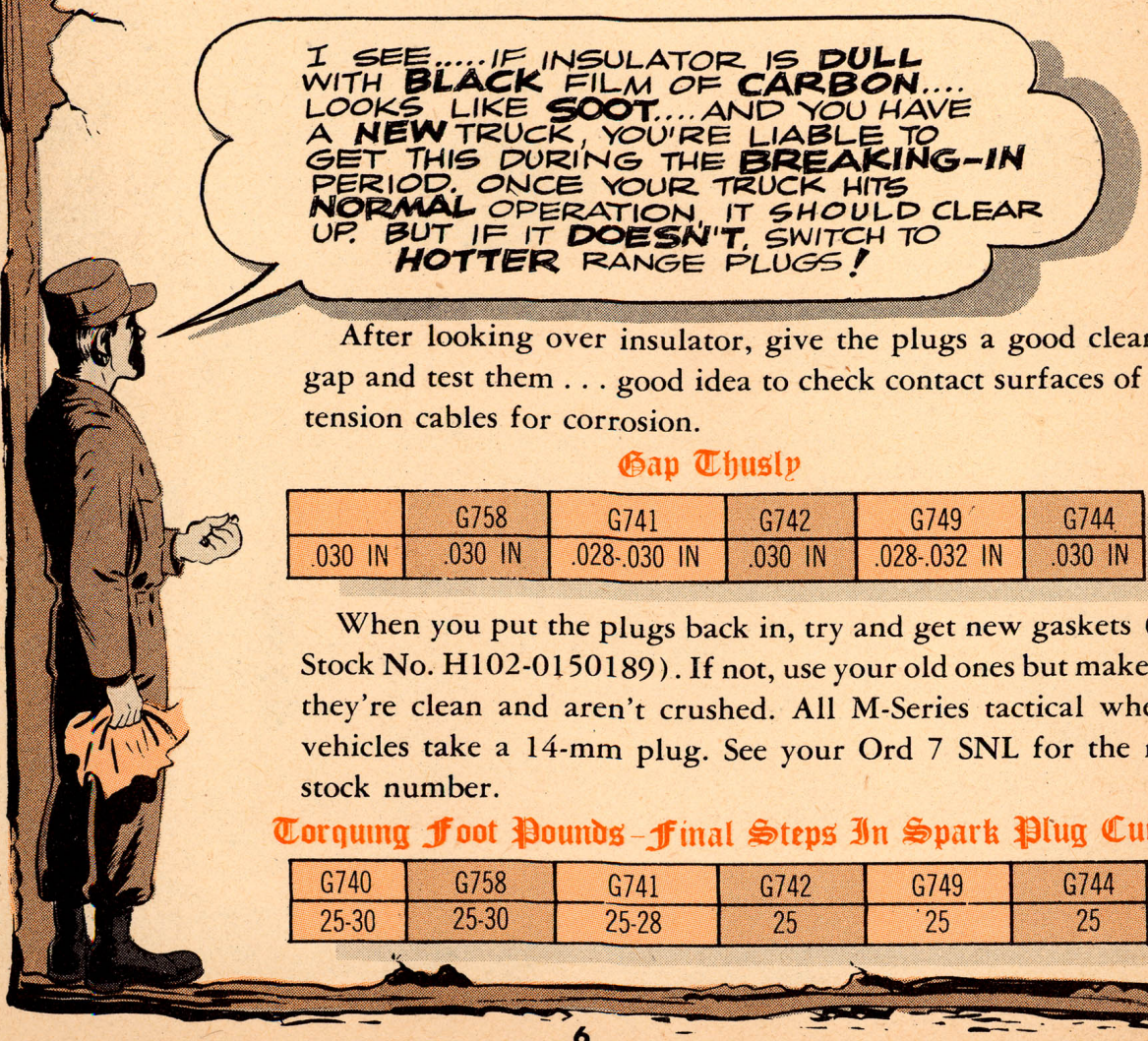
Replace... if deposits or spots have formed.

Plugs that have started to blister or discolor will fire too much and give pre-ignition. Try to isolate the cause of the trouble and correct it.

Black–Too Cold

If insulator's black your plugs are running too cold (unless you have a new truck). This means too much oil is reaching the combustion chamber. Best find the reason for it and fix it up, else you'll be cleaning those plugs pretty often.





After looking over insulator, give the plugs a good cleaning, gap and test them . . . good idea to check contact surfaces of high tension cables for corrosion.

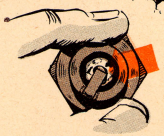
Gap Thusly

	G758	G741	G742	G749	G744
.030 IN	.030 IN	.028-.030 IN	.030 IN	.028-.032 IN	.030 IN

When you put the plugs back in, try and get new gaskets (Ord Stock No. H102-0150189). If not, use your old ones but make sure they're clean and aren't crushed. All M-Series tactical wheeled vehicles take a 14-mm plug. See your Ord 7 SNL for the right stock number.

Torquing Foot Pounds–Final Steps In Spark Plug Cure

G740	G758	G741	G742	G749	G744
25-30	25-30	25-28	25	25	25



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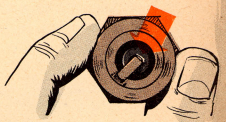

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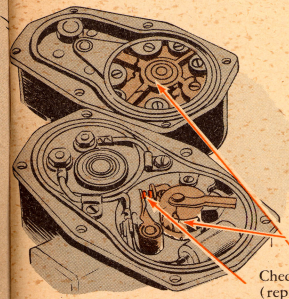
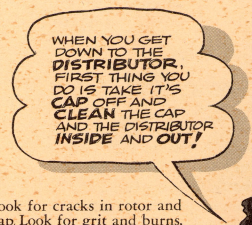
25-30	25-30	25-28	25	25	25

Ye Presentation of Distributor Cures





Look for cracks in rotor and cap. Look for grit and burns.

Check breaker points (replace if burned or pitted).

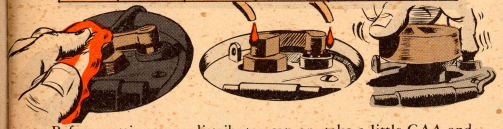
Leave them in and all you'll get is trouble.

Ye Chart for Points Setting

G740	G758	G741	G742	G749	G744
.020 IN	.020 IN	.020 IN	.022 IN	.020 IN	.018-.024 IN

Specifications for Adjustment of Breaker Springs (in ounces)

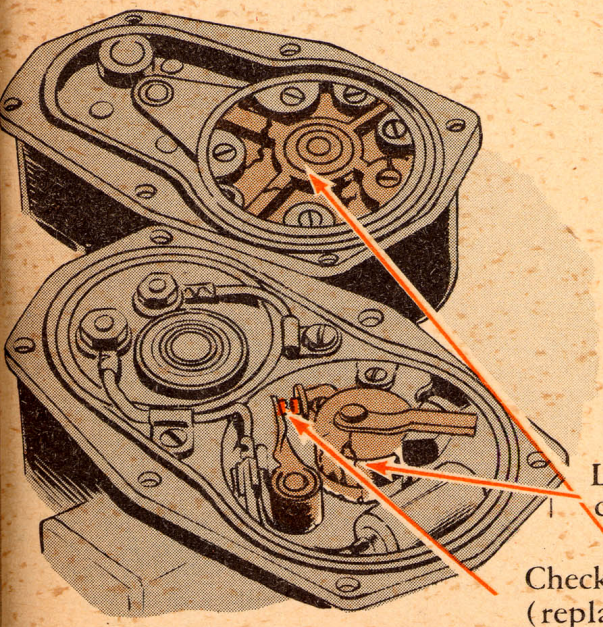
G740	G758	G471	G742	G749	G744
17-20	17-20	17-20	17-21	17-21	17-21

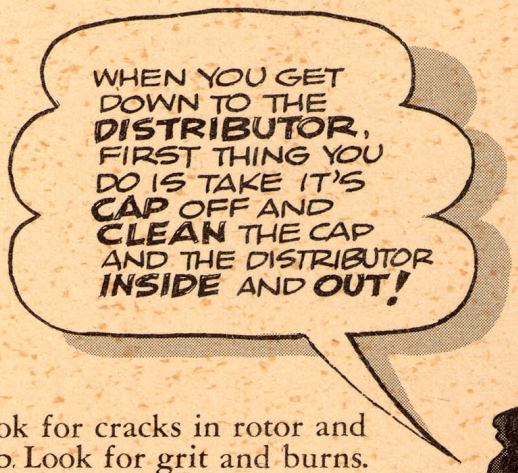


Before putting your distributor cap on, take a little GAA and wipe it lightly over the breaker cam. Then, lube the breaker arm pivot and wick under the rotor with 1 or 2 drops of preservative oil.

Put your distributor cap on—make sure the rotor is seated properly—and you're all set.

Ye Presentation of Distributor Cures





Look for cracks in rotor and cap. Look for grit and burns.

Check breaker points (replace if burned or pitted).

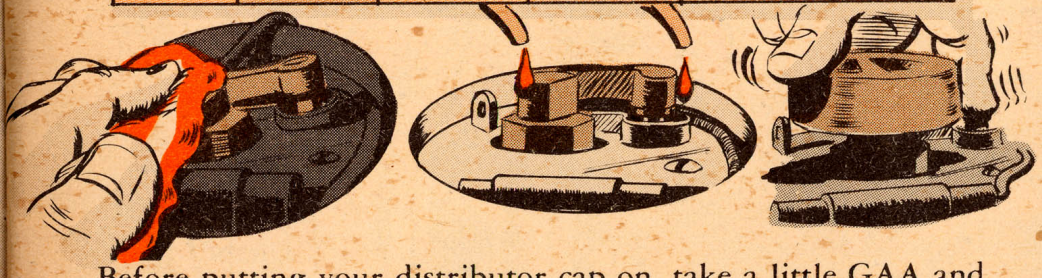
Leave them in and all you'll get is trouble.

Ye Chart for Points Setting

G740	G758	G741	G742	G749	G744
.020 IN	.020 IN	.020 IN	.022 IN	.020 IN	.018-.024 IN

Specifications for Adjustment of Breaker Springs (in ounces)

G740	G758	G471	G742	G749	G744
17-20	17-20	17-20	17-21	17-21	17-21



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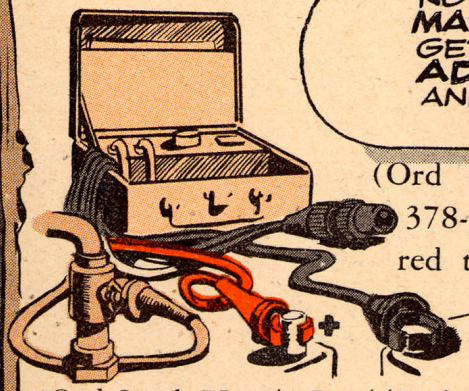
Ye Ignition Timing

NOW...WHEN YOU START **PREVENTIVE MAINTENANCE** OF **IGNITION TIMING**.... GET YOURSELF A **TIMING LIGHT ADAPTER** (ORD STOCK NO. 17-A-2967-50) AND ONE OF TWO **TIMING LIGHTS** AS ILLUSTRATED HERE!

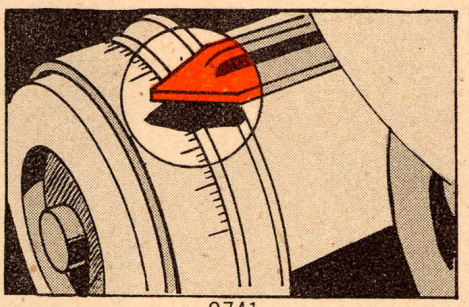


(Ord Stock No. 17-L-12936-300; FSN 6625-378-2073) has three leads. Blue to adapter, red to positive battery terminal and black to ground on negative battery terminal.

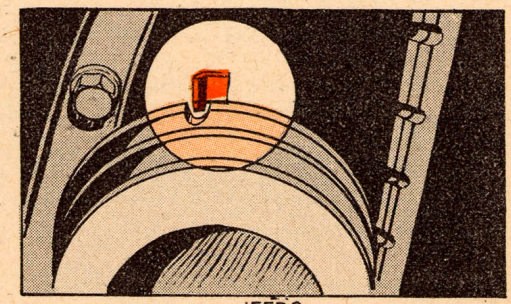
(Ord Stock No. 41-L-1440) has two leads. One to adapter, other to ground.

Remove spark plug cable from No. 1 plug and install adapter on threaded end of plug. Connect plug cable to adapter. Time with engine at idle.

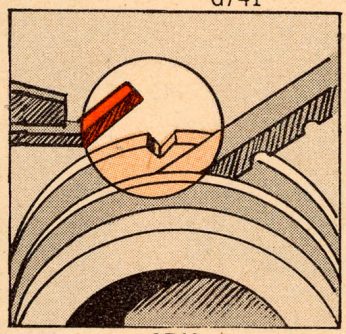
Timing Marks and Pointers



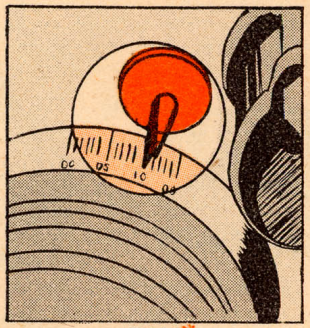
G741



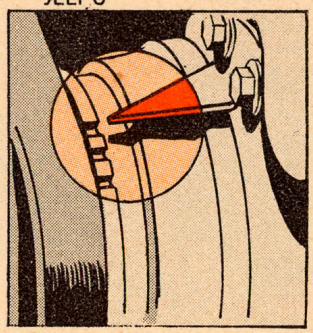
JEEPS



G749



G742*



G744

*When timing this truck, the engine should be set to idle at 400 rpm or less. If it's set higher, the advance mechanism will get into the act and give you a faulty reading.)

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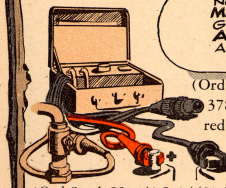

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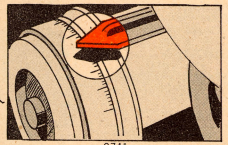
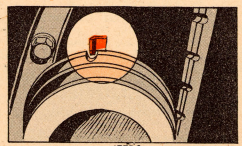


G741



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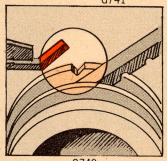
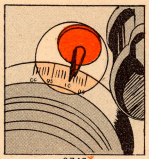
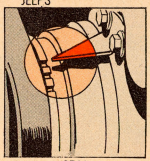


G749



G742*



G744

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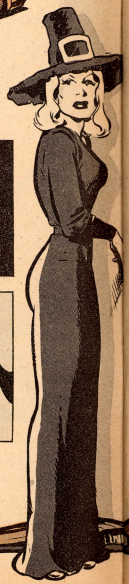


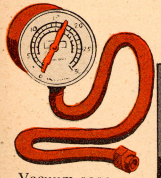
Timing Specifications Before Top Dead Center in Degrees

VEHICLE SERIES	G740	G758	G741	G742	G749	G744
TIMING	SET TO MARK	5 BTDC	*	4 BTDC	SET TO MARK	5 BTDC

* Y'KNOW THERE'S A TIP **YOUR** BOOK DOES'NT SHOW HERE ON **G741 TIMING**. IDEAL CONDITIONS, (1000 TO 2500 FT ALTITUDE) **TIMING'S** GOTTA BE SET AT **TWO** DEGREES AFTER TOP DEAD CENTER, IN VERY **HIGH** ALTITUDES IT CAN BE SET UP TO **SIX** DEGREES AFTER TOP DEAD CENTER, AND AT VERY **LOW** ALTITUDES TO **TWO** DEGREES BEFORE TOP DEAD CENTER.... CAN'T GO BEYOND THESE!

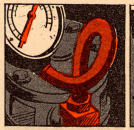
Ye Fuel Pump

Checking Output Pressure



Vacuum gage Ord Stock No. 41-G-500)

Disconnect gas line (output side of pump)



Install pressure gage

Crank engine (ignition off)

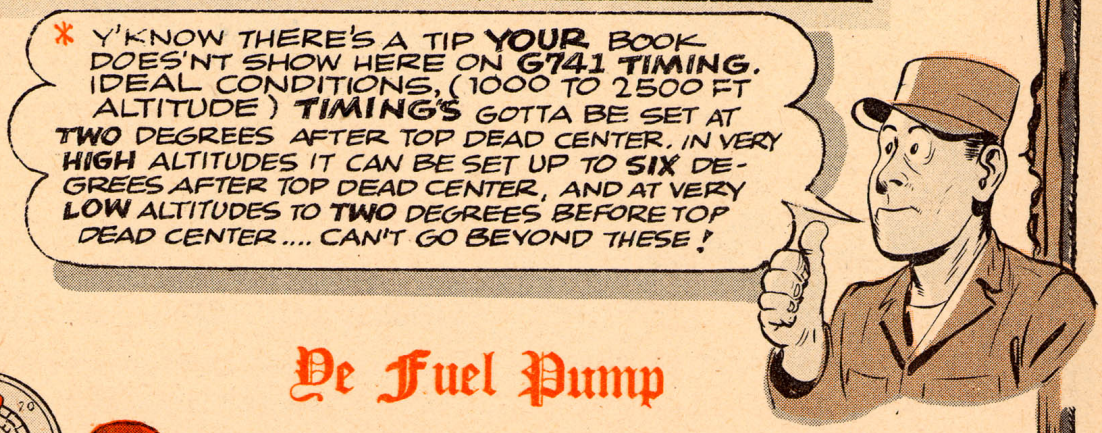
Whereupon You Should Get These Readings

G740	G758	G741	G742	G744
4 PSI	4 PSI	4 PSI	4 PSI	4 PSI

Note: G749 2½-Ton has electrical fuel pump. Disconnect fuel line from outlet fitting (ignition off). Connect gage to fitting. Turn ignition switch on and read gage. Should be at 2½ to 3 PSI.

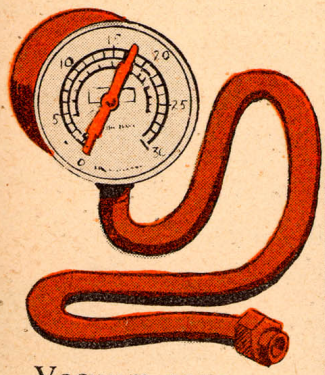
Timing Specifications Before Top Dead Center in Degrees

VEHICLE SERIES	G740	G758	G741	G742	G749	G744
TIMING	SET TO MARK	5 BTDC	*	4 BTDC	SET TO MARK	5 BTDC

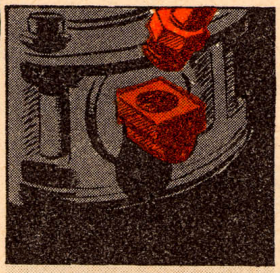


Ye Fuel Pump

Checking Output Pressure



Vacuum gage
Ord Stock
No. 41-G-500)



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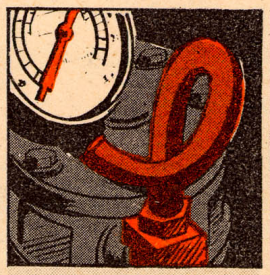
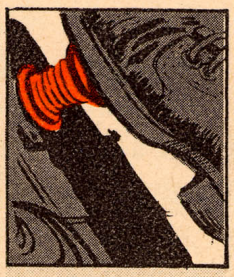


Install pressure gage



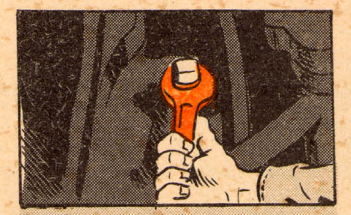
Crank engine (ignition off)

Whereupon You Should Get These Readings

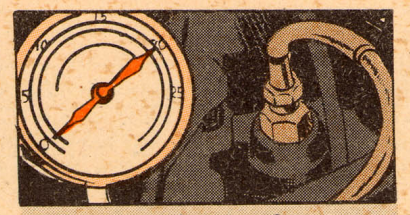
G740	G758	G741	G742	G744
4 PSI	4 PSI	4 PSI	4 PSI	4 PSI

Note: G749 2½-Ton has electrical fuel pump. Disconnect fuel line from outlet fitting (ignition off). Connect gage to fitting. Turn ignition switch on and read gage. Should be at 2½ to 3 PSI.

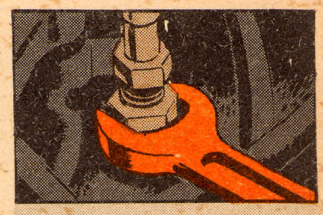
Ye Manifold Vacuum Test



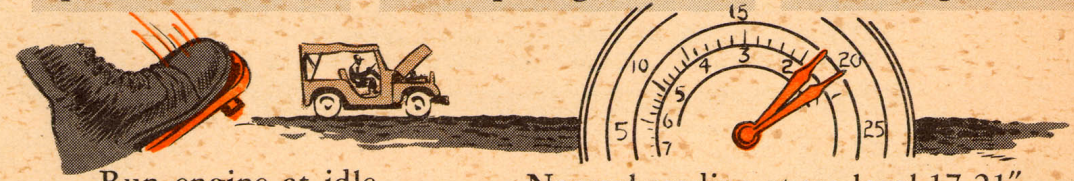
Take out pipe plug at top of intake manifold



Connect hose of gage into opening



Make sure connections are tight

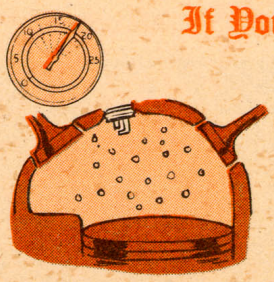


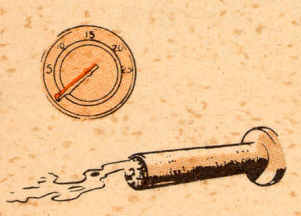
Run engine at idle

Normal reading at sea level 17-21".
Higher altitudes give lower readings

If Your Needle ...

1. Has the shakes or drifts slowly, your gas-air carburetor mixture adjustment is not right.

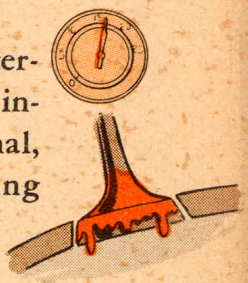




2. Gradually drops to zero, you have a clogged up exhaust system.

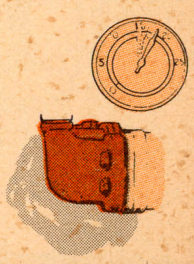
3. Waves steadily back and forth, you have a compression leak between one or more cylinders—usually means a leaky valve, a blown head gasket, a clogged intake manifold or faulty ignition.

4. Drops at intervals of from 3 to 5 inches below the normal, you have a sticking valve.



5. Stays steady at reading lower than normal, means loss of power caused by late ignition or late valve timing or improper sealing of piston rings.

6. Stays steady at a low reading. Check for manifold leaks.



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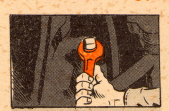

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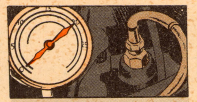

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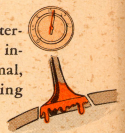

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6. Stays steady at a low reading. Check for manifold leaks.

Concluding Items

Before you slam your hood down, there are a few other things to check out. First, make sure that all air cleaners are free of grit, slime and dirt. A free air cleaner leaves your crankcase breather lines open so the crankcase can get the air it needs to breathe. If you're operating in sandy country, your air cleaner will need a heckuva lot more service than in normal areas.

Check carburetor throttle adjustment to make sure truck isn't running too slow or too fast. Use engine tachometer (Ord Stock No. 18-T-231). Adjust while operating at the following RPM's.

JEEP—600 RPM
G742 2½-TON—450 RPM
G749 2½-TON—375 RPM
G744 5-TON—400 RPM
G741 ¾-TON—USE VACUUM GAGE. MAXIMUM READING 21"

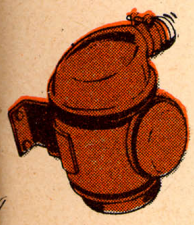
The G741 ¾-ton truck and both 2½-ton trucks—the G742 and the G749—have seasonally-adjusted heat control valves that have to be checked. Make sure this valve is working free—just give her a li'l jiggle and set it for the proper season.

Other Things To Check

BATTERIES, CABLES, COOLING SYSTEM, CYLINDER HEAD GASKET, EXHAUST MANIFOLD AND GASKETS, EXTERNAL FITTINGS AND LINES, GENERATOR, REGULATOR,

OIL FILTER ASSEMBLY AND ELEMENT, ROCKER ARM COVER ASSEMBLY AND GASKET, STARTER AND SWITCH ASSEMBLIES, VALVE COMPARTMENT COVER AND GASKET

Concluding Items



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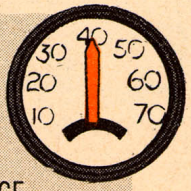

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MAXIMUM READING 21"

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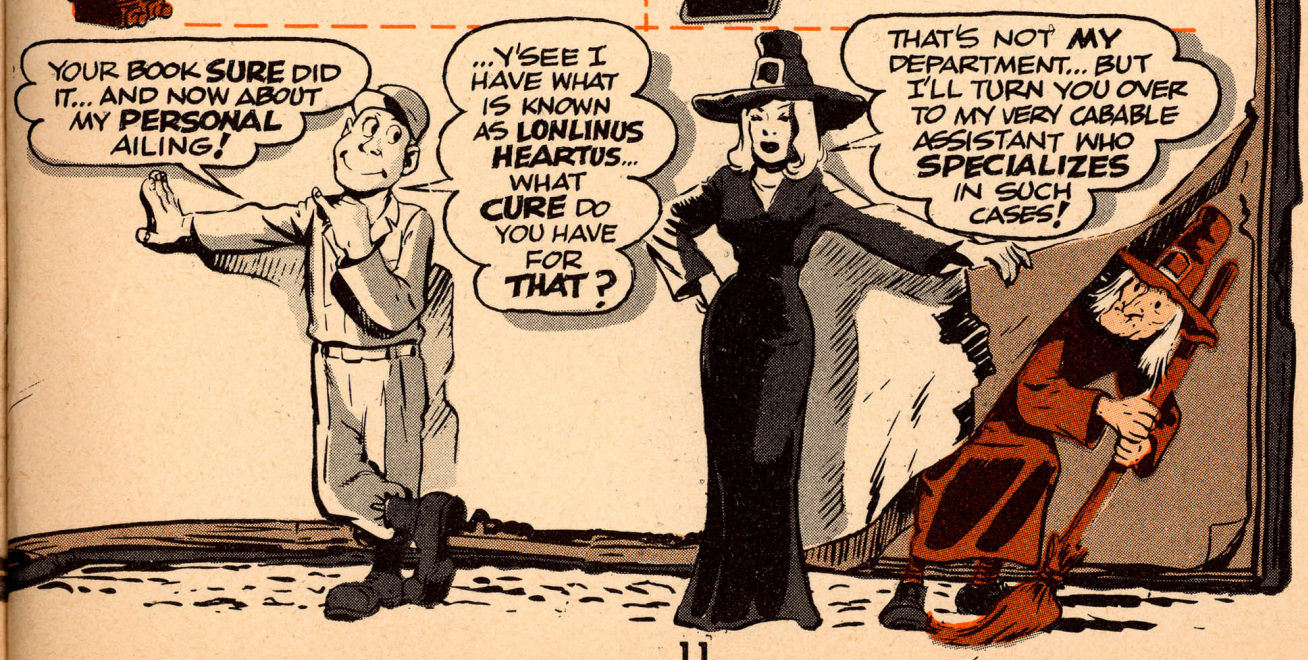
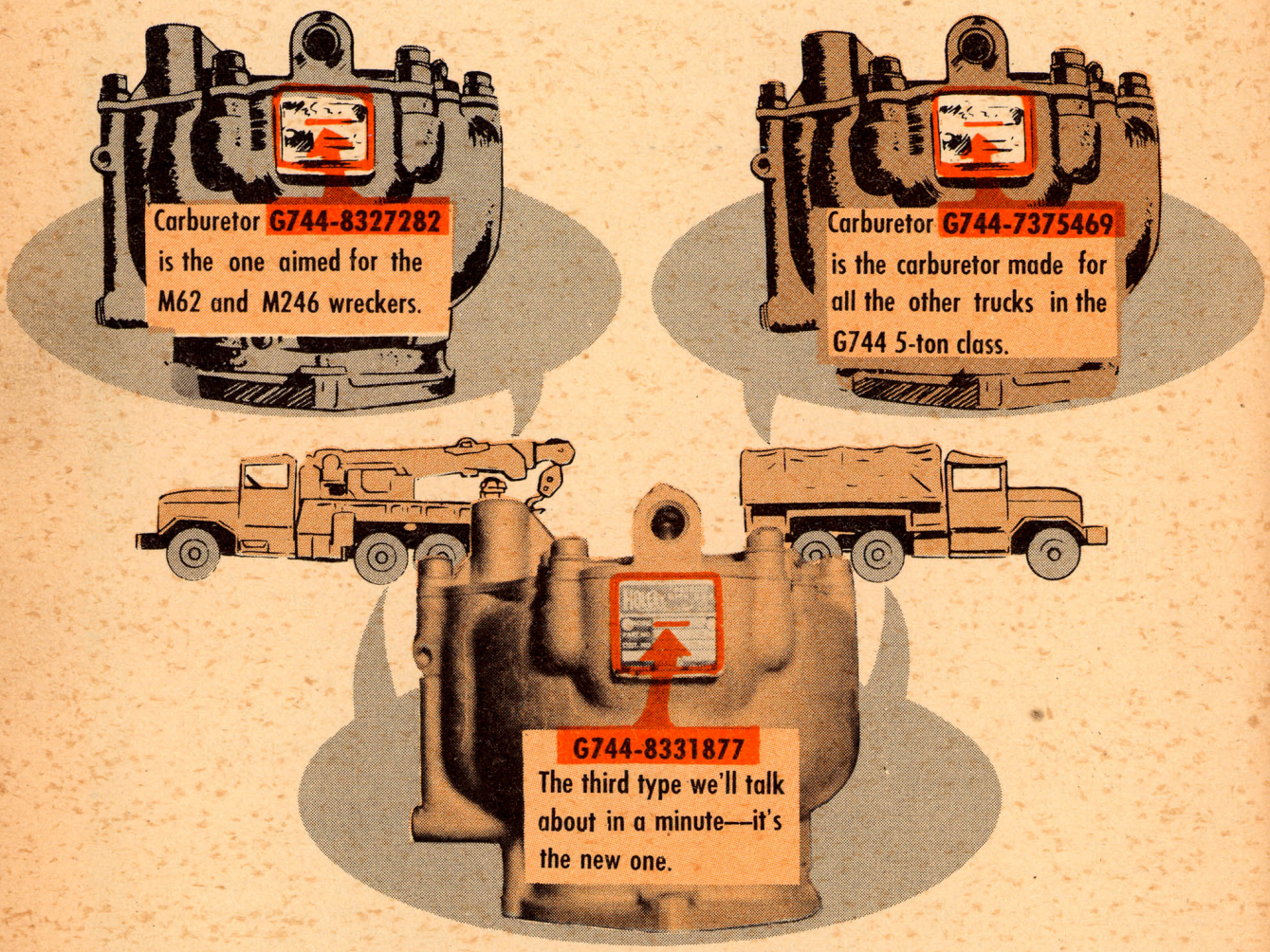
BATTERIES, CABLES, COOLING SYSTEM, CYLINDER HEAD GASKET, EXHAUST MANIFOLD AND GASKETS, EXTERNAL FITTINGS AND LINES, GENERATOR, REGULATOR,

OIL FILTER ASSEMBLY AND ELEMENT, ROCKER ARM COVER ASSEMBLY AND GASKET, STARTER AND SWITCH ASSEMBLIES, VALVE COMPARTMENT COVER AND GASKET



CARBURETOR HIJINKS

You may find yourself thinking that the three carburetors for the G744-series 5-ton are interchangeable for all the vehicles in this series, because they look alike. But, they aren't—so caution, friend, caution.



Now, these two carburetors—**G744-8327282** and **G744-7375469**—have different governor calibrations and can't be interchanged, so don't try it or else you'll find yourself chugging along at nix miles per hour.

On this third carburetor—**G744-8331877**—you can put this one on any of the 5-ton trucks with a little fixing up. If you're using this carburetor on any 5-ton truck except the M62 and M246, you can use her just as she is. When it comes to the M62 and M246 you have to use Governor Spring G744-8327323 with this carburetor.

By the way, this G744-8331877 carburetor is the one that'll be in use on all 5-ton trucks before long. It's replacing the other two.

Hot or cold?

With winter coming on again, you guys driving the G758, G741, and G749 trucks will want to check out your power plant heaters to make sure they're hooked up right.

Vehicles with the converted World War II power plant heaters in them should be looked at for proper hook-up. If it's wrong, your truck will start feeling like a frozen turnip.

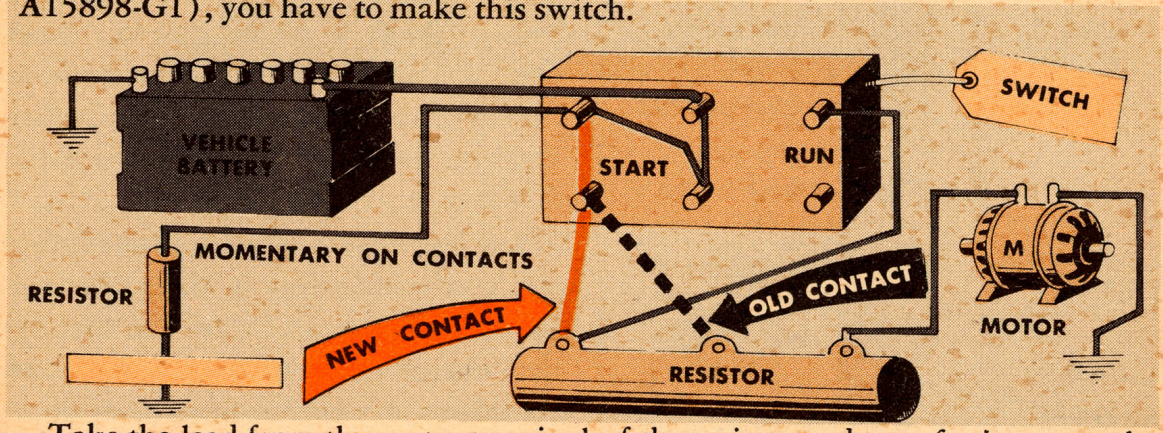
Here's the way these particular kits have been set up:

G249-5701173 converted to G249-5701730 for the M38A1.

G249-5701093 (12V), and G249-5701176 (6V), converted to G249-5701370 for the M37.

The G249-5701099 converted to G249-5701465 for the M135.

What you do is follow the lead which runs from the starting side of your switch. If this lead goes to the center terminal of your resistor (Mfrs Part No A15898-G1), you have to make this switch.



Take the lead from the center terminal of the resistor and transfer it over to the end terminal. This is the same end terminal that your **RUN** wire is hooked up to.

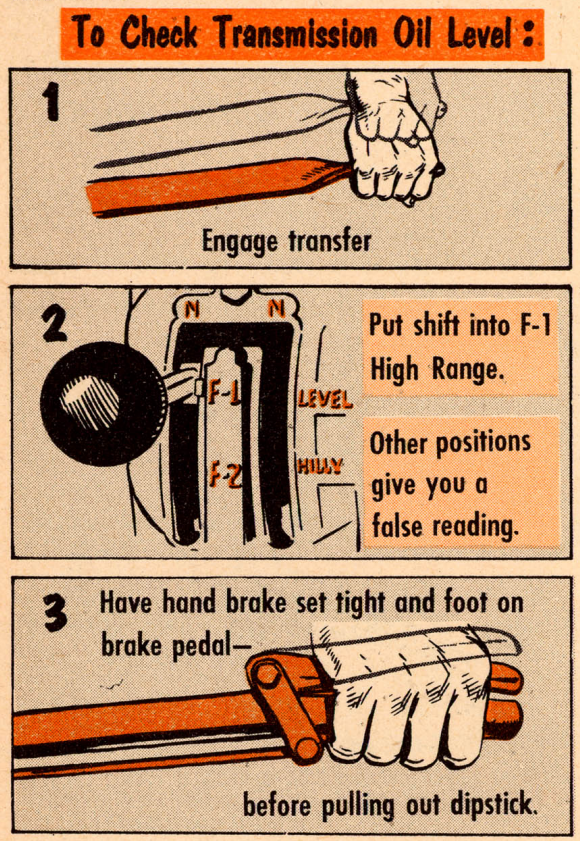
With the starting lead hooked up wrong, you'll be getting too much voltage through the motor. This churns up more air than the combustion chamber can handle, flubbing the fuel-air ratio and cooling the igniter. Makes for a cold, cold engine.

Read the problem

Questions have been pouring in about para 2a of TB 9-8024-1 (19 Jan 56), which says, "The transfer as well as the transmission control should always be placed in the neutral position when the engine must be left running while the vehicle is not in operation."

Guys are throwing TM 9-8024 (Oct 55) into the picture, because this TM says that when you go to check your transmission fluid level, the transmission must be placed in F-1 High Range. So, they ask, which is right—the TB or the TM?

Well, they're both right—the TB and the TM.



The TB applies to all those other times you have to keep your truck idling when she's not in operation.

Seat session

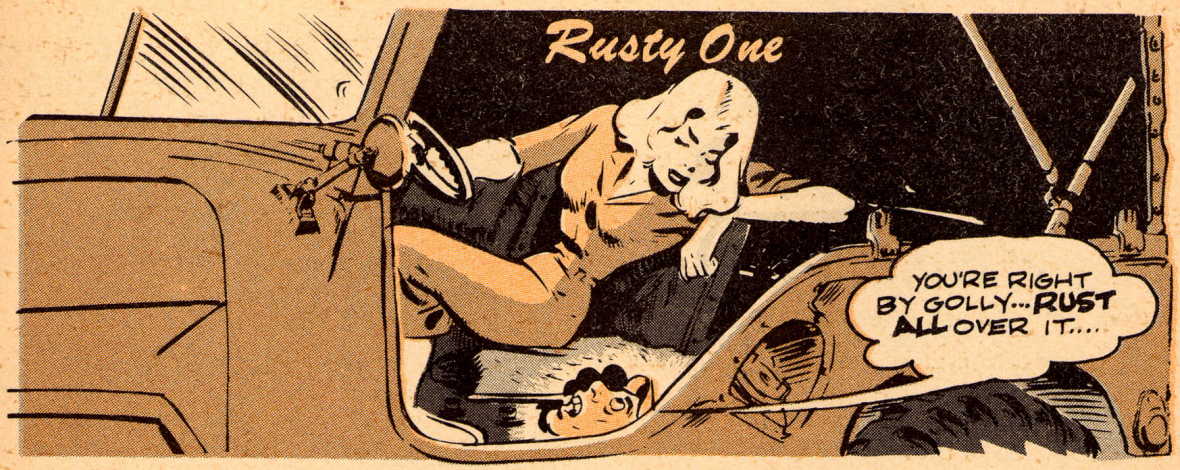
A lot of guys driving those G742 series 2½-ton trucks have been letting their rear spring seat bearings go kaputsky just because they aren't lubing them like LO 9-8022 (4 Nov 55) says.

When these babies go bad, they can eventually affect the operation of your rear bogies. So, why not play it safe and lube 'em once every 1,000 miles like the LO tells you.

All you have to do is loosen the screws on the seat cover just a bit before lubing. Then, when you start lubing, you can see that grease come out **all around** the loose cover. That's when you know to stop shooting grease up there. The lube that shows has to be clean or else the old lube will be left up there. After lubing, just tighten the seat-bearing-cap bolts. Every once in a while, in between lubings, check these bolts and make sure they're tight.

The important part of the operation is loosening that cover. Some guys have been sticking a grease gun up those seats and have been shooting without that cover being unscrewed. So, before you know it, there's enough pressure in that seat to pop the seals.

Some of these seats have been hitting the field with plugs in them. Reason for this is that sometimes the factory runs out of grease fittings and has to put plugs in with the idea being that the plug will be replaced by a fitting when the vehicle gets into the field. The way you know this is by looking at your LO—if the part calls for grease, you're to have a grease fitting in there.



Got something for you, which will help stop rust from fouling up the outside of your Jeep's fuel tank.

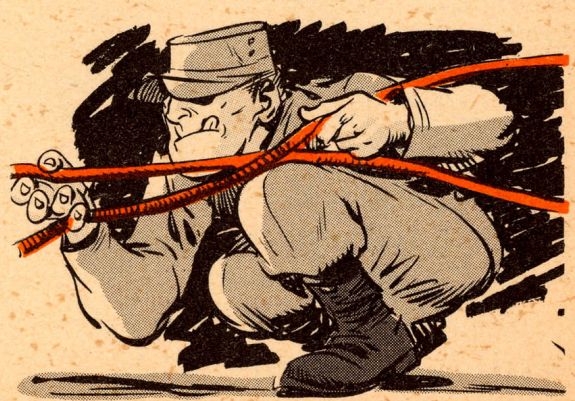
Lots of sand and grit form on top of your fuel tank compartment and fill the space between the top of the tank and the bottom of the Jeep's floor. This stuff holds moisture like a sponge. You can see what happens—when the vehicle moves, a lot of vibration is set up and the sandy grit acts like an abrasive against the fuel tank. The tank's protective coating is worn away and the thing's left wide open for a case of rust.

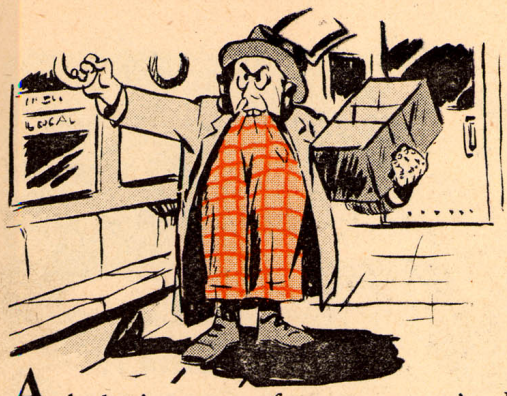
The way to do away with this is to remove the fuel tank from the Jeep **annually or every 12,000 miles.** Wipe all the dirt and grit from the tank and spot-finish the surface where the paint's worn off—use rust inhibiting OD enamel (Eng Stock No. 52-3465.-300.010).

This dope's in TB Ord 635 (4 Apr 56). It'd be a good idea to jot it down somewhere where it'll be picked up at every D^2 service.

Some guys have been mucho miffed when that red warning light on the left front fender of their M62 5-ton wreckers suddenly decides to go on the blink. After checking to make sure the bulb's OK, they're stuck because that circuit has been a little hard to follow.

That warning light is connected through a flasher unit to the warning light switch on the instrument panel. The switch is connected to a circuit breaker on the engine side of the firewall. If you ever have to trace that circuit, just follow the wire tagged with the number 325.





BELTIN'

A belt is part of every man's daily appearance. Not only does it make for a sharp-looking character—it also serves a most useful and worthwhile purpose.

But, just like most other things, it's got to be used right. If it's too loose, it gives a drape shape; too tight and that seat looks like it's part of a guy's anatomy.

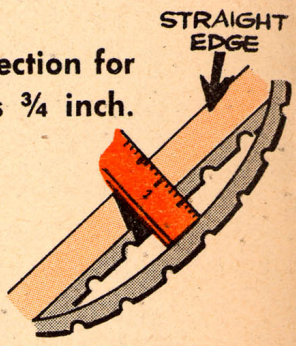
Same with your vehicles—if that fan belt isn't adjusted just right, it'll cause trouble. Too loose and your generator and water pump won't put out that oomph the way they should; too tight and a strain will be put on these parts' bearings. Your water pump may sprout a couple or three leaks and before you know it, you may have to ship it back for a rebuild job. And, of course, those belts may also get ruined—frayed and glazed, that is.

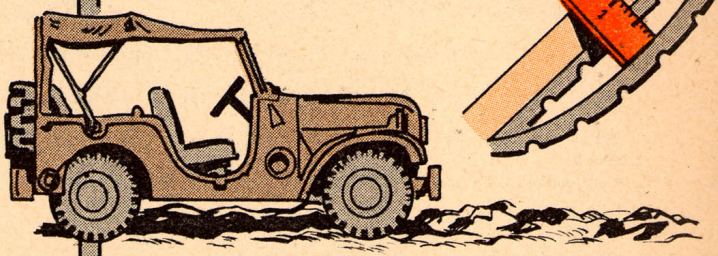
One thing that may tip you off to a badly adjusted fan belt is any mousey squeaks you hear coming from under the hood. This may mean that your belt's too loose and has to be adjusted. The best way to know what's what tho, is to check the belt's deflection once in a while.

What say we go over these adjustments for your M-series vehicles and show you how to make 'em?

The G740 and G758 JEEPS

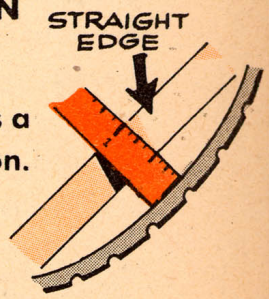
The right deflection for your Jeeps is ¾ inch.

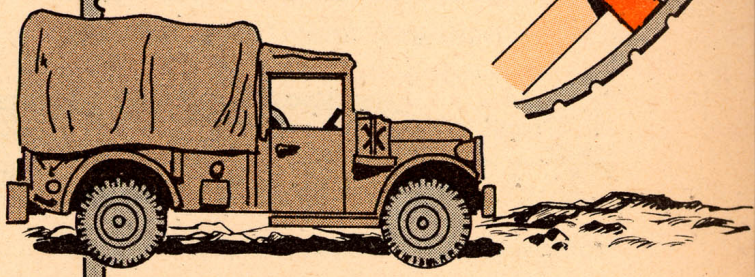




THE G741 ¾-TON TRUCK

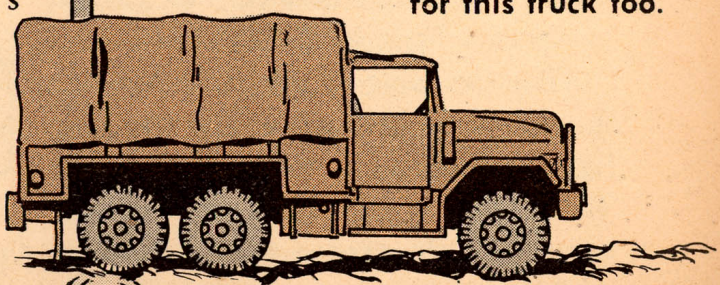
This one takes a ½-in deflection.

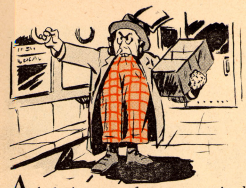




THE G742 2½-TON TRUCKS

A ½-in deflection is the ticket for this truck too.





BELTIN' IT AROUND

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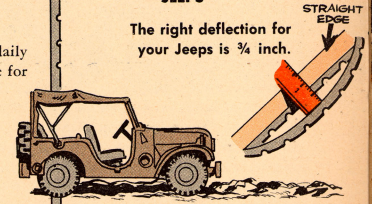
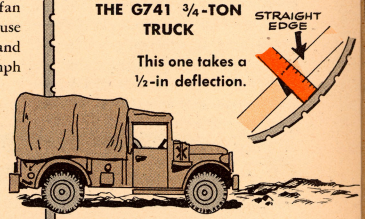


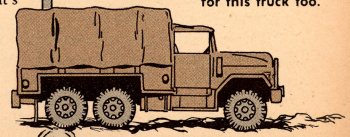
THE G741 ¾-TON TRUCK

This one takes a ½-in deflection.

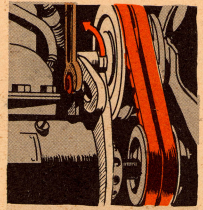


THE G742 2½-TON TRUCKS

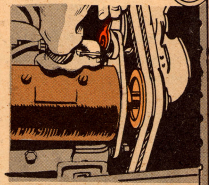
A ½-in deflection is the ticket for this truck too.



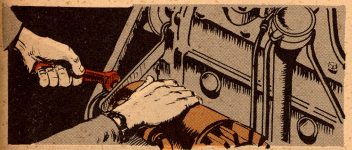
To check, put a ruler over the fan and generator drive belts from the water pump pulley to the generator drive pulley. Give a firm push in on the belt and see if she measures a ¾-in deflection.



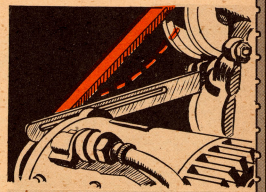
If not, loosen the bolt holding the generator belt tension brace in place.



Then move the generator until you get this deflection. Then, tighten up on the belt adjusting screw.



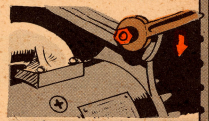
You'll get it just like you got your deflection on the Jeeps—loosen the generator adjusting-arm-bolt and pull the generator toward you if the tension is too loose; you'll push it away from you if the tension is too tight.



You can also use a ruler here. Then, tighten up on the adjusting-arm-bolt.

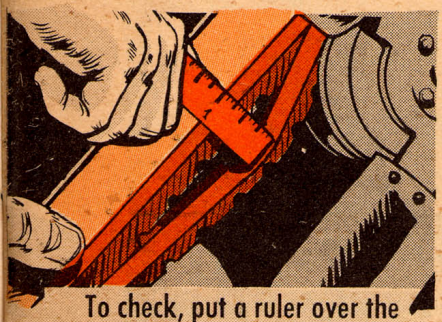
To check, put your ruler in place like it shows and press in **firmly** at a point midway between the generator and crankshaft pulleys to get your deflection.

To set it, loosen the two safety nuts holding the generator to the mounting bracket. Loosen the screw holding the generator to the adjusting arm, so you can move the generator toward or away from you.

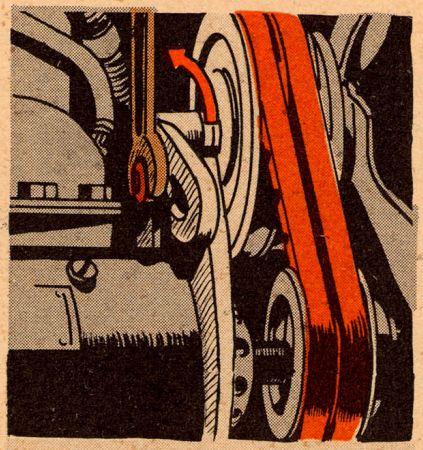


After you have the right deflection tighten up on the screw holding the generator to the adjusting arm and on those two safety nuts.

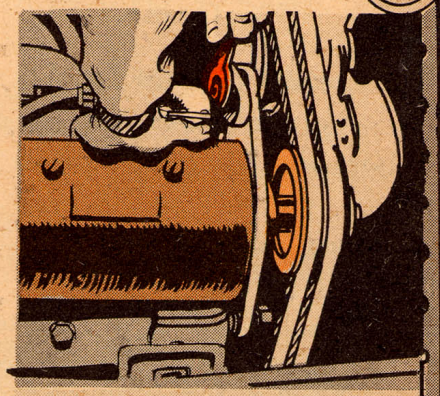
IT AROUND



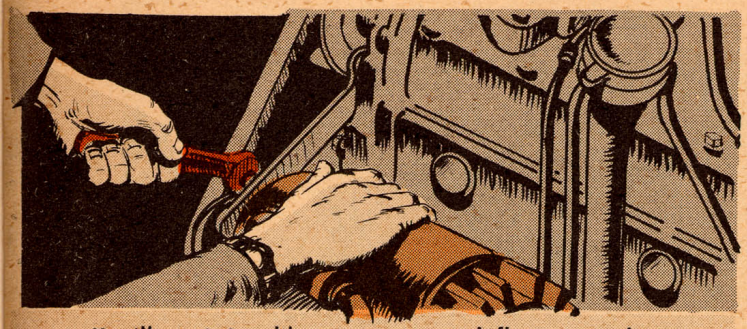
To check, put a ruler over the fan and generator drive belts from the water pump pulley to the generator drive pulley. Give a firm push in on the belt and see if she measures a 3/4-in deflection.



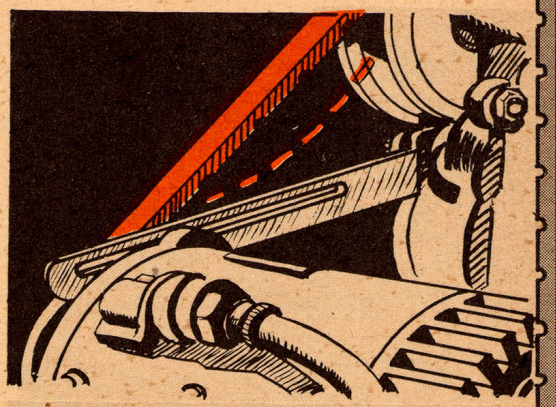
If not, loosen the bolt holding the generator belt tension brace in place.



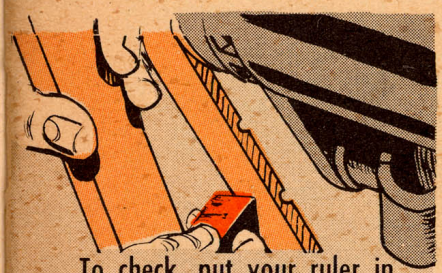
Then move the generator until you get this deflection. Then, tighten up on the belt adjusting screw.



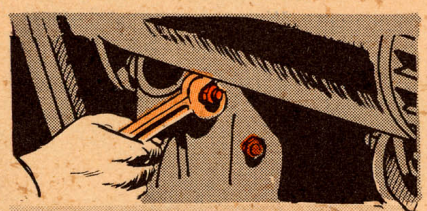
You'll get it just like you got your deflection on the Jeeps —loosen the generator adjusting-arm-bolt and pull the generator toward you if the tension is too loose; you'll push it away from you if the tension is too tight.



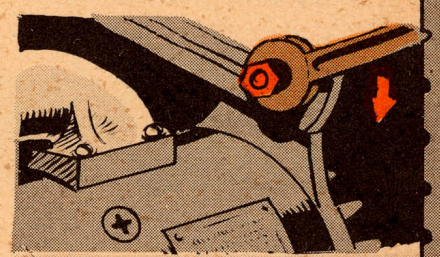
You can also use a ruler here. Then, tighten up on the adjusting-arm-bolt.



To check, put your ruler in place like it shows and press in **firmly** at a point midway between the generator and crankshaft pulleys to get your deflection.



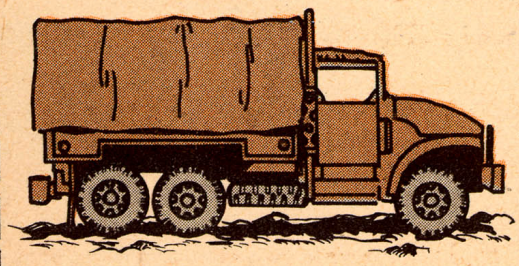
To set it, loosen the two safety nuts holding the generator to the mounting bracket. Loosen the screw holding the generator to the adjusting arm, so you can move the generator toward or away from you.

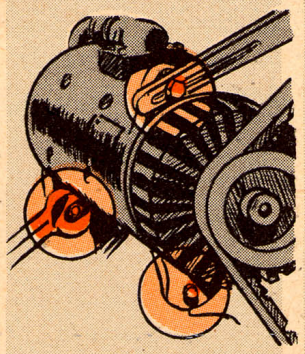


After you have the right deflection tighten up on the screw holding the generator to the adjusting arm and on those two safety nuts.

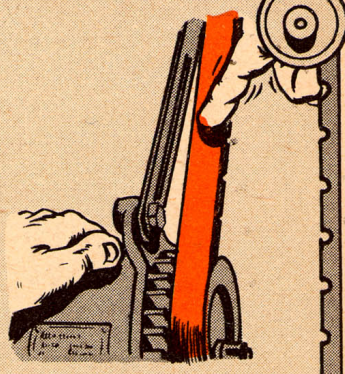
THE G749 2½-TON TRUCKS

The adjustment for this truck gives you a little leeway—between ½ and ¾ of an inch.





To get it, loosen the adjusting-arm-to-generator cap-screw and the nuts on the two generator mounting bolts.

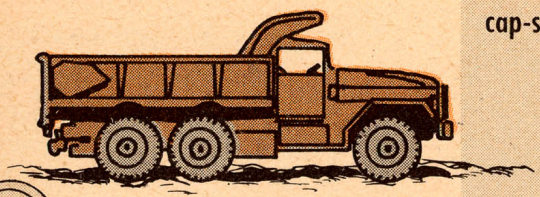


Put a light pressure on the belt midway between the generator and water pump pulleys, and push or pull the generator until you get the right deflection. Then, tighten up on the screw and bolts.

THE G744 5-TON TRUCKS

The adjustment for this buggy also gives you a little leeway—⅛ to ¼ of an inch.

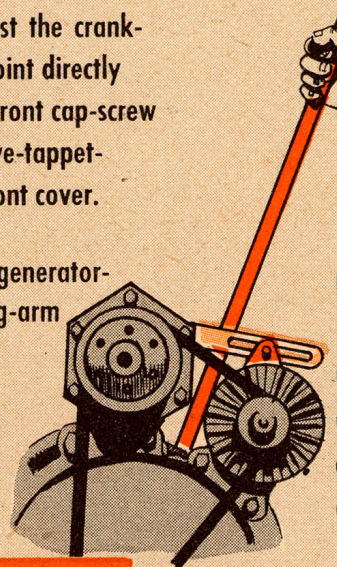
Get a 30-in bar or, use a rim-tool-and-wheel-nut-wrench handle (Ord Stock No. 41-H-1541-10).



Put bar between crankcase and generator so its lower end will push against the crankcase at a point directly below the front cap-screw on the valve-tappet-chamber front cover.

Loosen the generator-to-adjusting-arm cap-screw.

Pull the upper end of the bar toward you with a pull of about 50 pounds.



Keeping the bar in place, tighten up on the generator-to-adjusting-arm cap-screw.

MATCHED BELTS

The Jeeps, the G742 2½-ton trucks and the G744 5-tons all have matched pairs of fan belts. If one belt goes bad, change both of them.

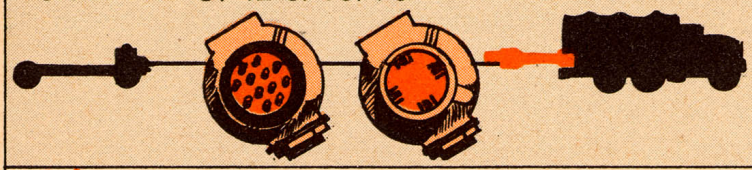
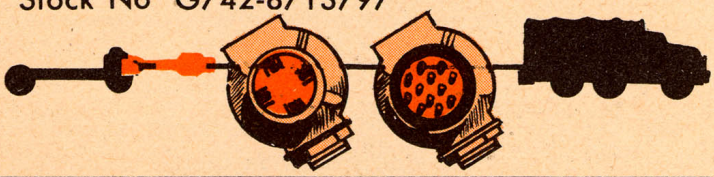
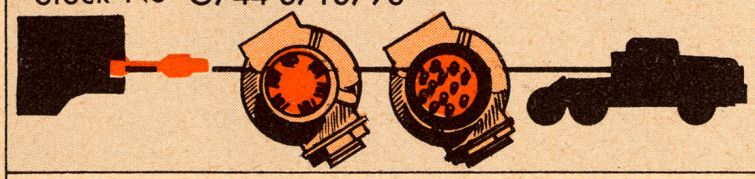
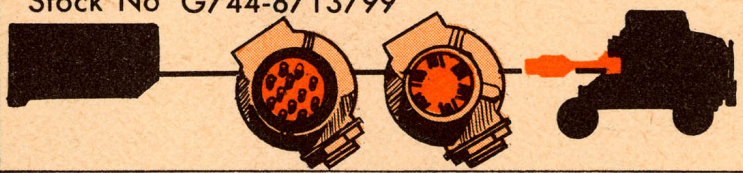
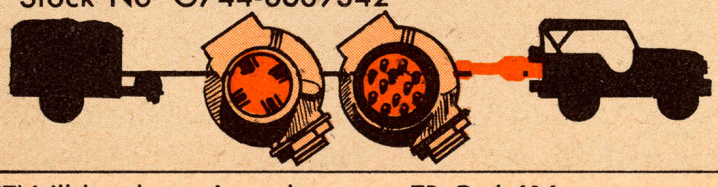
Here's why—these belts stretch. If you put on one new belt without changing the other, the two belts won't work right because the older one will be looser than the new one. So, it's a good idea to change both belts at the same time.

Hook Up

Been having trouble hooking up your trailers to your prime movers, because they have different kinds of receptacles?

If so, you'll be glad to hear that you can now get adapter assemblies for towing any trailer with any prime mover (and vicer verser) now in the field. And the only thing you'll have to change is the light bulbs on the towed vehicle to make it jibe with the voltage of the prime mover.

TB Ord 616 (21 Sept 55) put this into being. There are five adapters you can get. Here's how they shape up—

	WHERE USED
Adapter, 4/12-pole socket contacts Stock No G742-8713796 	At receptacle of prime mover having 4 poles when prime mover is towing trailer with 12-pole receptacle.
Adapter, 4/12-pole pin contacts Stock No G742-8713797 	At receptacle of trailer having 4-poles when prime mover has 12-pole receptacle.
Adapter, 6/12-pole pin contacts Stock No G744-8713798 	At receptacle of trailer having 6-poles when prime mover has 12-pole receptacle.
Adapter, 6/12-pole socket contacts Stock No G744-8713799 	At receptacle of prime mover having 6-poles when towing trailer with 12-pole receptacle.
***Adapter,** 12/4-pole pin contacts Stock No G744-8689342 	At receptacle of prime mover having 12-poles when towing trailer with permanently-attached 4-pole cable.

*This'll be shown in a change to TB Ord 616.

NO! NO! NO!

nein

TIDAK

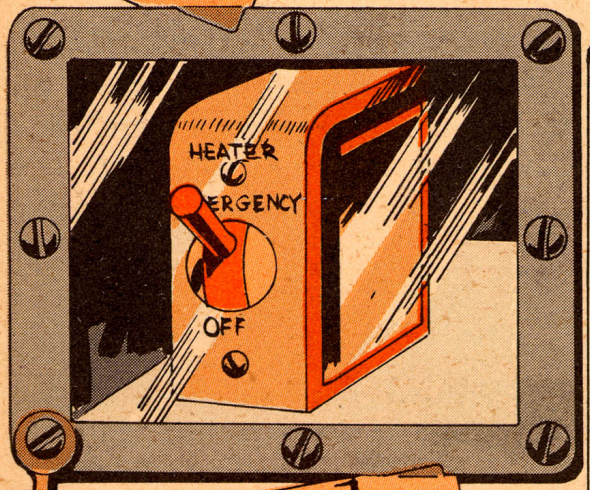
NAY

NEM

NON

NO

NOPE



Nadu

What can y'do to wise up those hard-headed schmoes who somehow refuse to learn about that **EMERGENCY** switch in the circuit of their M48 Tank personnel heaters?

This switch is not—repeat, NOT—to be used to merely turn off those heaters when you're through with 'em. It's there for **emergency** use only—like for a fast fording or when an enemy gas attack demands that **all** power be cut off from the heater.

These heaters are self-purging. When you use the heater control box ON-OFF switch—like you should—there's a delayed-action set-up in the heater that lets the blowers run an extra couple of minutes...to cool the heater and kick out any balky, unburned gas that's still around. Just give it a little time, friend—it'll shut itself off.

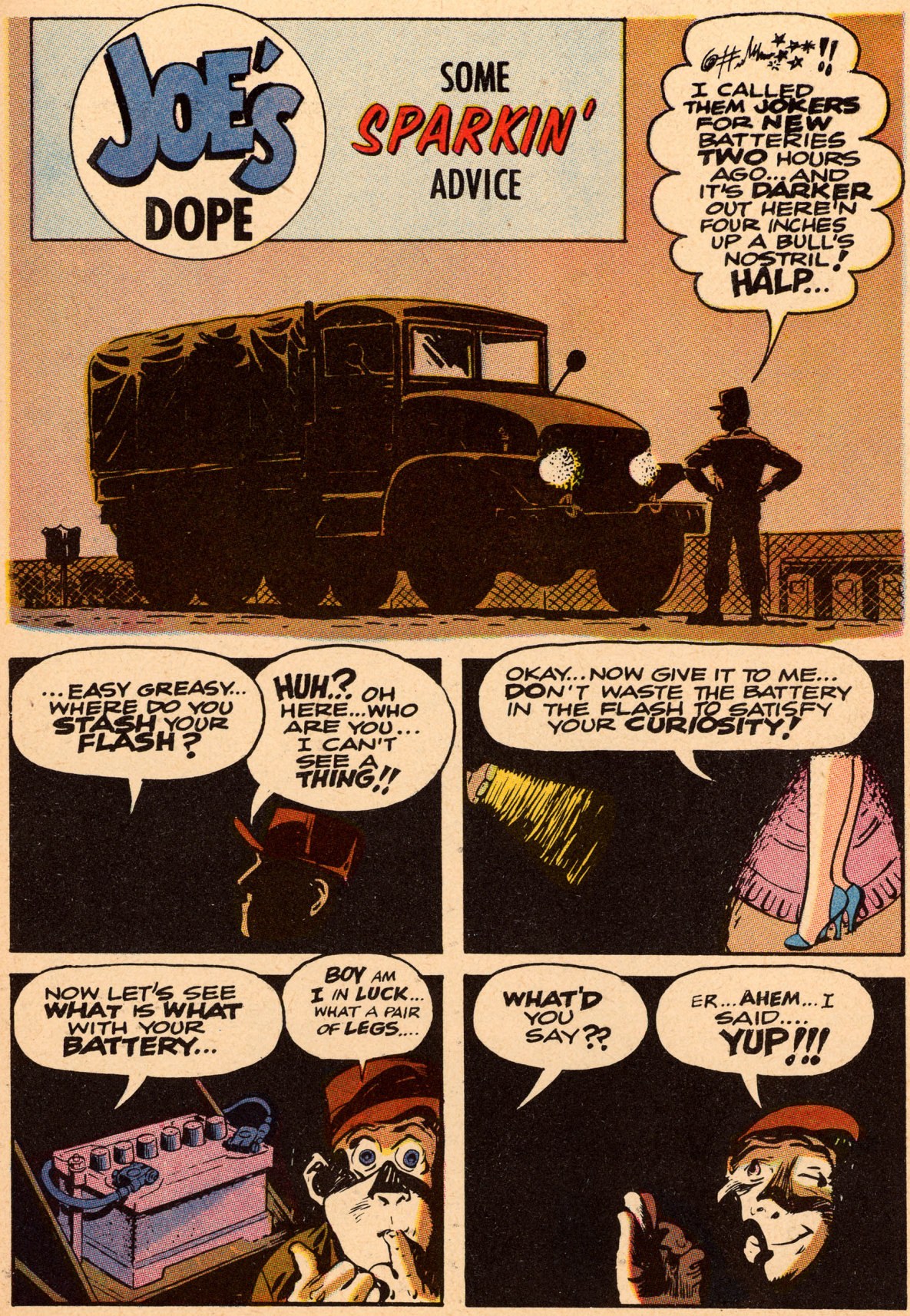
NEE

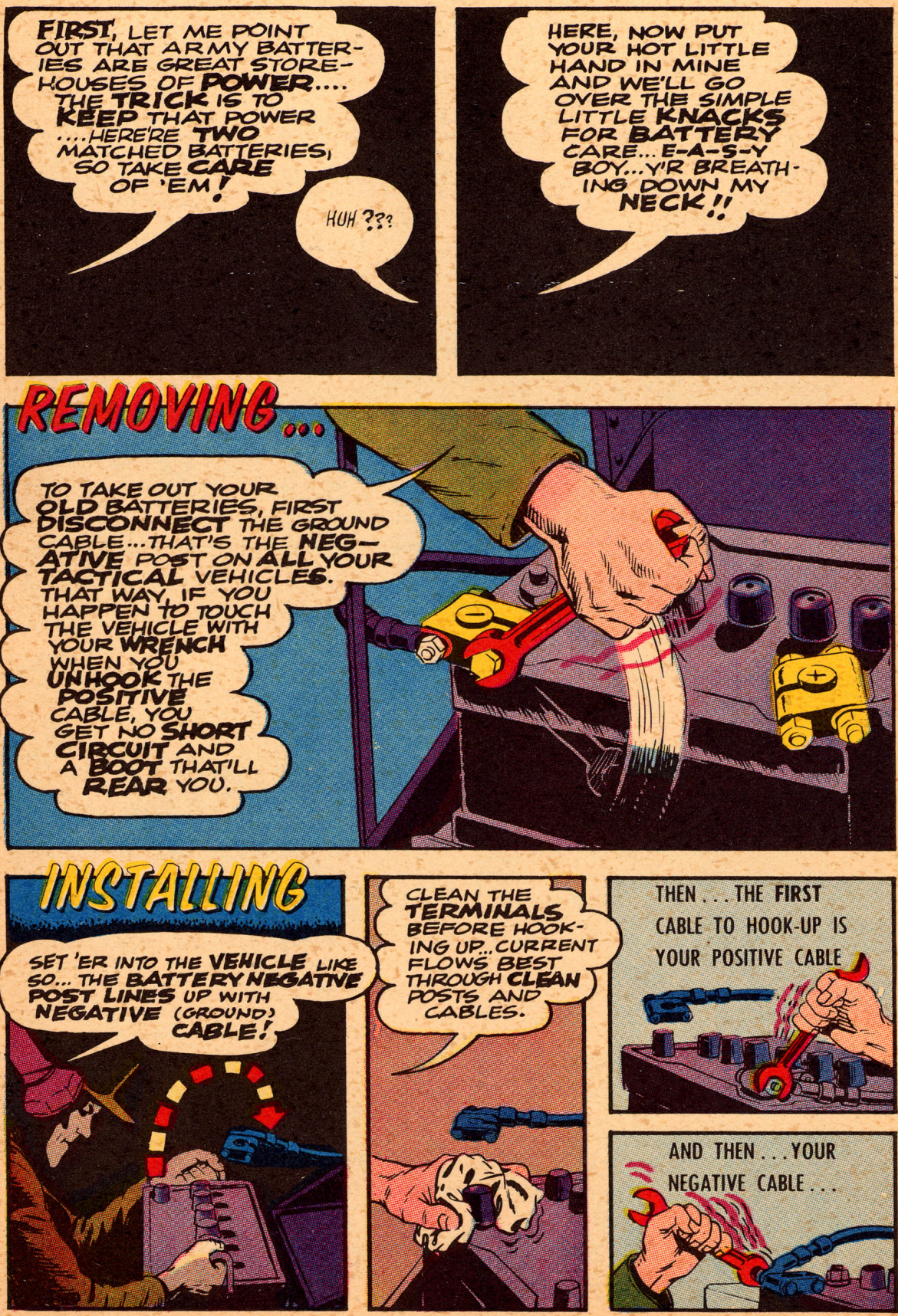
But if you get impatient—or are just plain ignorant—and flip off that **EMERGENCY** switch, then you've immediately shut off all power to the heater—it goes un-purged—which carbons up the igniter—soon it won't fire when you turn it on—gas starts to spill around—people get afraid to mess with it (and for good reason)—you've got a mess on your hands, and your heater needing an overhaul.

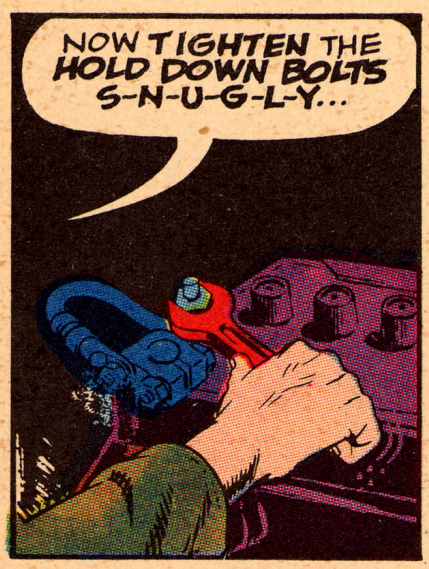
So **watch it,** hey? **EMERGENCY** switch for **emergencies only**...OK?

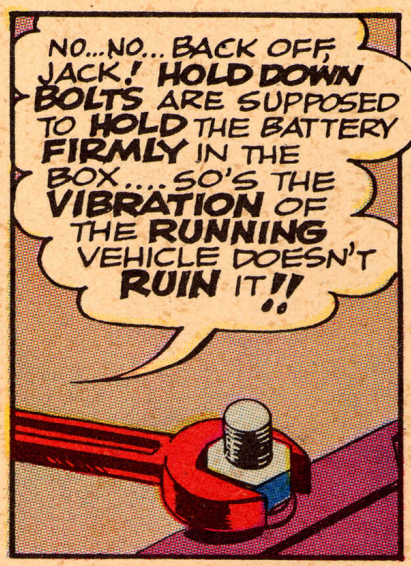
NYET

NAWww

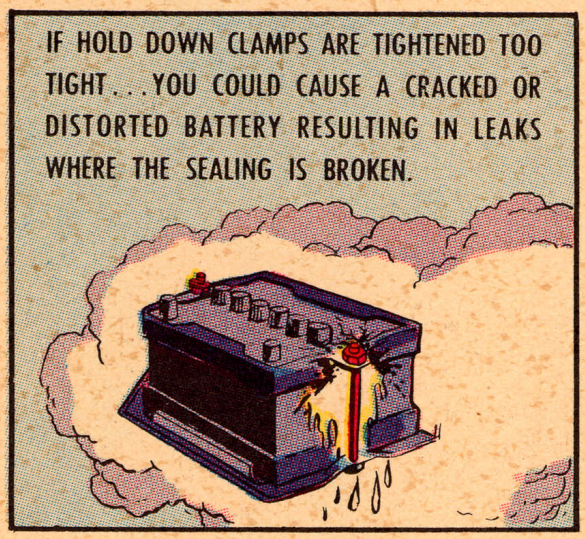

JOE'S DOPE
SOME SPARKIN' ADVICE
@#%*!!
I CALLED THEM JOKERS FOR NEW BATTERIES TWO HOURS AGO... AND IT'S DARKER OUT HERE'N FOUR INCHES UP A BULL'S NOSTRIL! HALP...
...EASY GREASY... WHERE DO YOU STASH YOUR FLASH?
HUH.? OH HERE...WHO ARE YOU... I CAN'T SEE A THING!!
OKAY...NOW GIVE IT TO ME... DON'T WASTE THE BATTERY IN THE FLASH TO SATISFY YOUR CURIOSITY!
NOW LET'S SEE WHAT IS WHAT WITH YOUR BATTERY...
BOY AM I IN LUCK... WHAT A PAIR OF LEGS....
WHAT'D YOU SAY??
ER... AHEM... I SAID.... YUP!!!


FIRST, LET ME POINT OUT THAT ARMY BATTERIES ARE GREAT STOREHOUSES OF POWER.... THE TRICK IS TO KEEP THAT POWER ....HERE'RE TWO MATCHED BATTERIES, SO TAKE CARE OF 'EM!
KUH ??
HERE, NOW PUT YOUR HOT LITTLE HAND IN MINE AND WE'LL GO OVER THE SIMPLE LITTLE KNACKS FOR BATTERY CARE... E-A-S-Y BOY... Y'R BREATHING DOWN MY NECK!!
REMOVING...
TO TAKE OUT YOUR OLD BATTERIES, FIRST DISCONNECT THE GROUND CABLE... THAT'S THE NEGATIVE POST ON ALL YOUR TACTICAL VEHICLES. THAT WAY, IF YOU HAPPEN TO TOUCH THE VEHICLE WITH YOUR WRENCH WHEN YOU UNHOOK THE POSITIVE CABLE, YOU GET NO SHORT CIRCUIT AND A BOOT THAT'LL REAR YOU.
INSTALLING
SET 'ER INTO THE VEHICLE LIKE SO... THE BATTERY NEGATIVE POST LINES UP WITH NEGATIVE (GROUND) CABLE!
CLEAN THE TERMINALS BEFORE HOOKING UP... CURRENT FLOWS BEST THROUGH CLEAN POSTS AND CABLES.
THEN... THE FIRST CABLE TO HOOK-UP IS YOUR POSITIVE CABLE
AND THEN... YOUR NEGATIVE CABLE...


NOW TIGHTEN THE HOLD DOWN BOLTS S-N-U-G-L-Y...

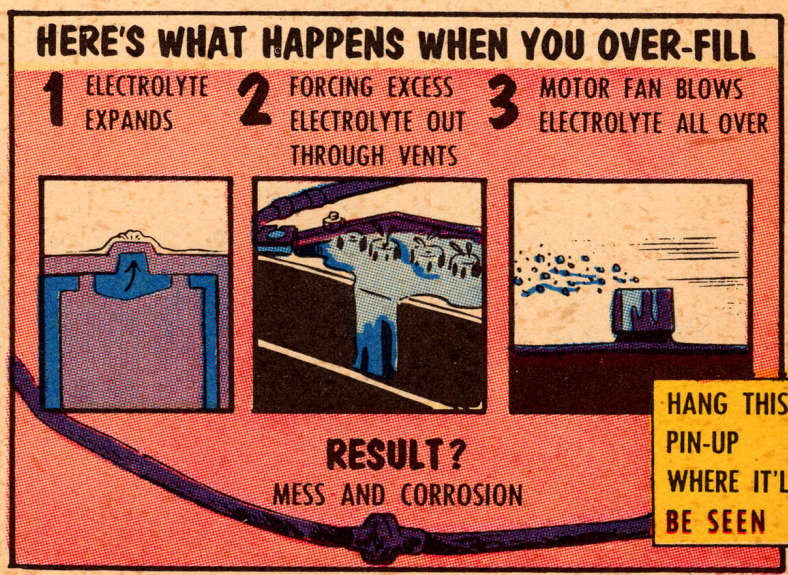

NO...NO... BACK OFF, JACK! HOLD DOWN BOLTS ARE SUPPOSED TO HOLD THE BATTERY FIRMLY IN THE BOX.... SO'S THE VIBRATION OF THE RUNNING VEHICLE DOESN'T RUIN IT!!

SO, WHEN I SAY SNUG ...I DON'T MEAN STRIP THE THREADS... ...COME HERE... PUT YOUR ARMS OVER HERE... NOW...MMMMUGH... GET IT???
MMMMM... YUP... YUP... SHORE DO!

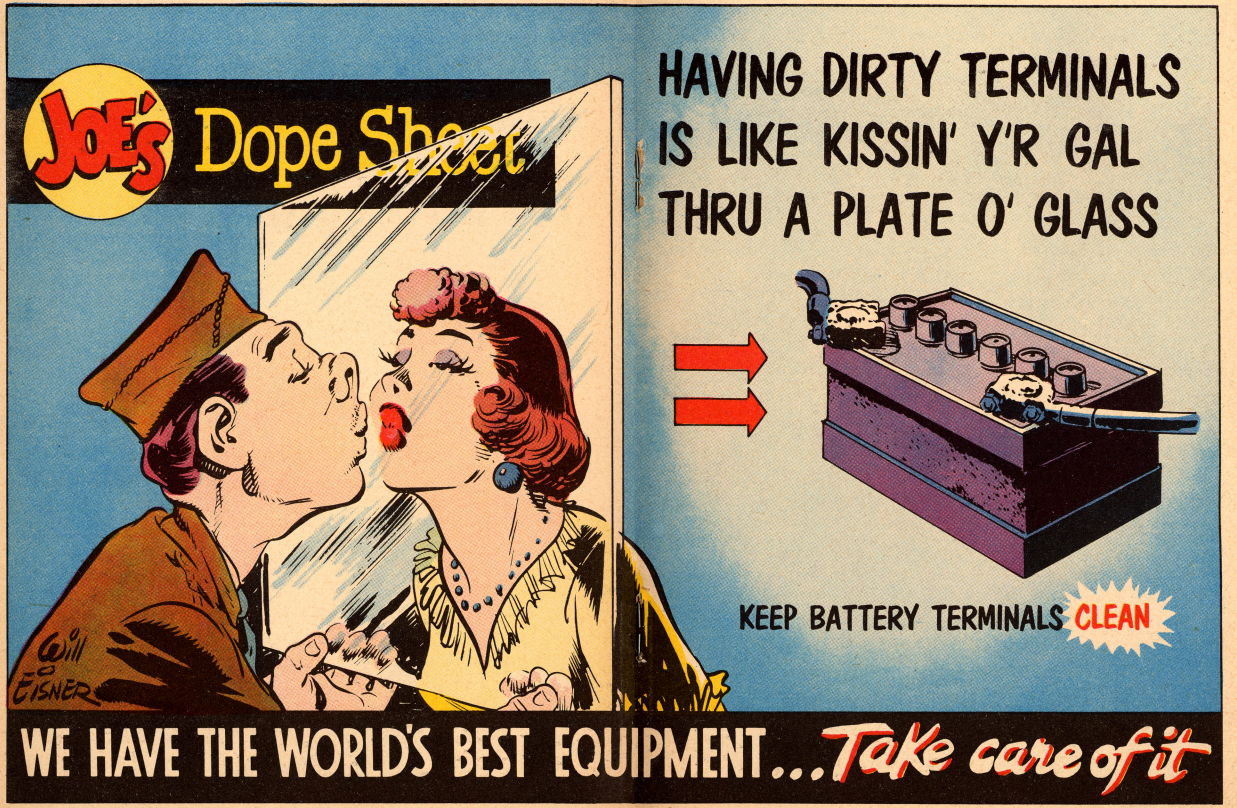

IF HOLD DOWN CLAMPS ARE TIGHTENED TOO TIGHT...YOU COULD CAUSE A CRACKED OR DISTORTED BATTERY RESULTING IN LEAKS WHERE THE SEALING IS BROKEN.

ADDING WATER
NO!! NO... DON'T USE THE SYRINGE LIKE THAT...YOU'LL FLOOD THE CELLS!!
THEN HOW DO I KNOW WHEN AND HOW MUCH??

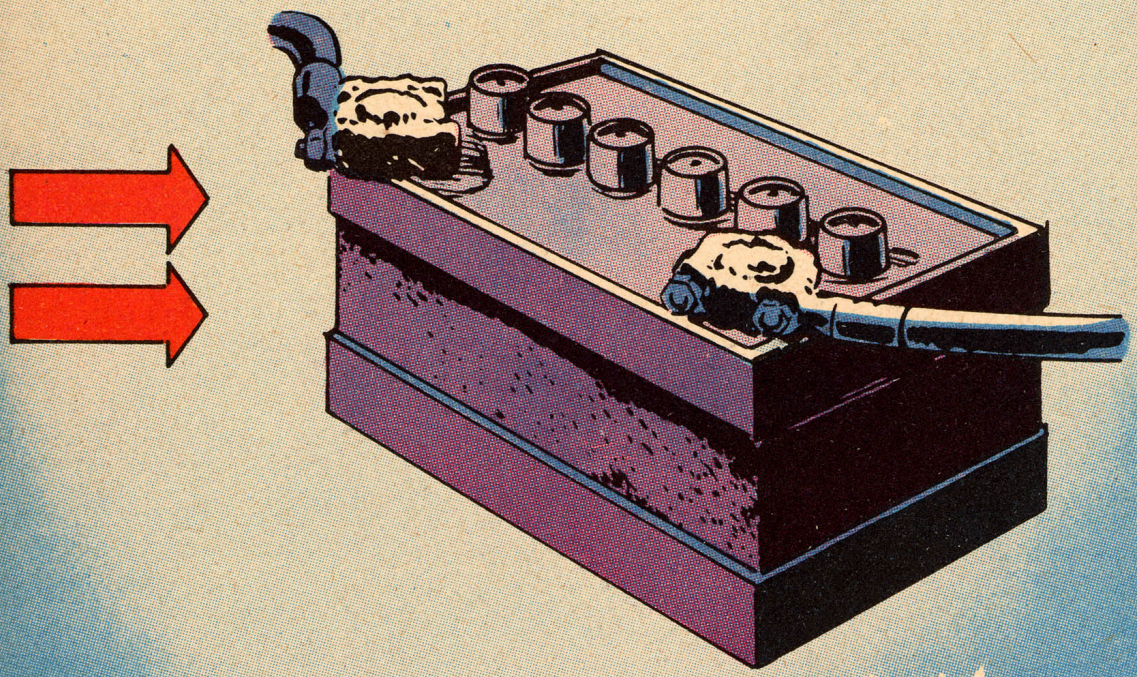
BY USING THE FILLING SYRINGE RIGHT... AND AS A RULE KEEP JUST ENOUGH WATER IN THE BATTERY TO COVER THE PLATES...NOT TOO MUCH... NOT TOO LITTLE!


HERE'S WHAT HAPPENS WHEN YOU OVER-FILL
1 ELECTROLYTE EXPANDS
2 FORCING EXCESS ELECTROLYTE OUT THROUGH VENTS
3 MOTOR FAN BLOWS ELECTROLYTE ALL OVER
RESULT?
MESS AND CORROSION
HANG THIS PIN-UP WHERE IT'LL BE SEEN

JOE'S
Dope Sheet
Will Eisner
WE HAVE THE WORLD'S BEST EQUI

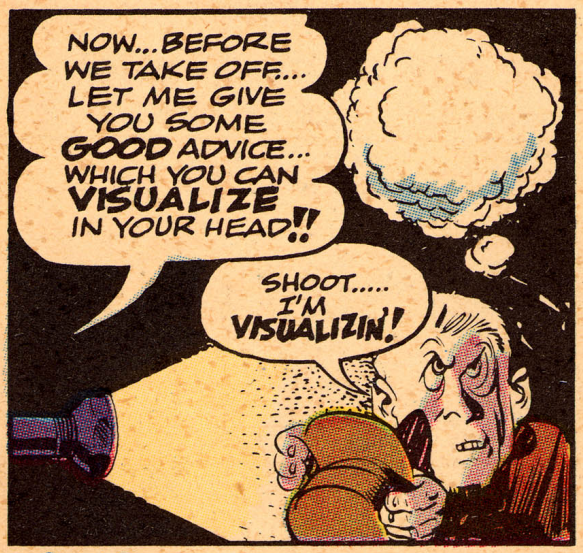

JOE'S Dope Sheet
HAVING DIRTY TERMINALS
IS LIKE KISSIN' Y'R GAL
THRU A PLATE O' GLASS
KEEP BATTERY TERMINALS CLEAN
Will Eisner
WE HAVE THE WORLD'S BEST EQUIPMENT... Take care of it

HAVING DIRTY TERMINALS IS LIKE KISSIN' Y'R GAL THRU A PLATE O' GLASS



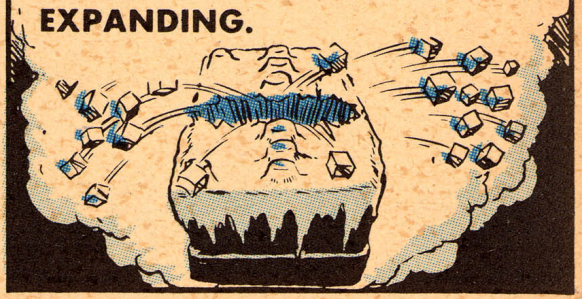
KEEP BATTERY TERMINALS CLEAN

IPMENT ... *Take care of it*

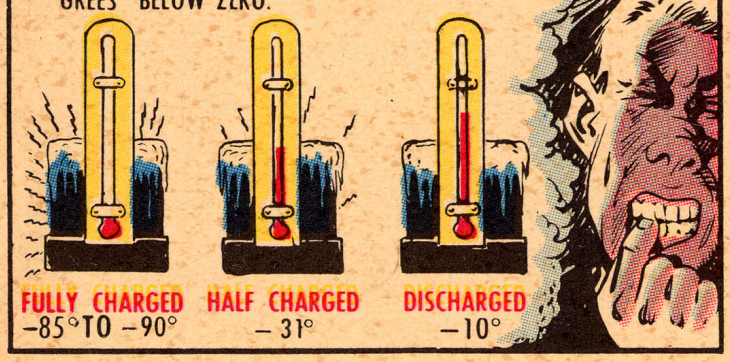


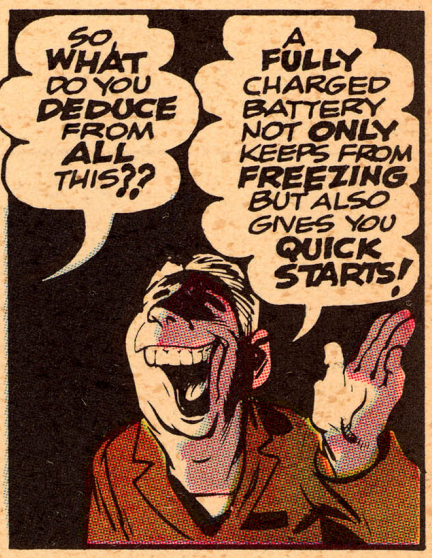
COLD WEATHER??

DON'T ADD WATER UNLESS YOU'RE ABOUT TO DRIVE OFF... WATER WON'T HAVE A CHANCE TO MIX PROPERLY WITH THE ACID... IT'LL FREEZE AND YOU KNOW WHAT HAPPENS INSIDE A CLOSED BOX WHEN THINGS START **EXPANDING.**



AND... A FULLY CHARGED BATTERY FREEZES AT A VERY LOW TEMPERATURE... BETWEEN 85 AND 95 DEGREES BELOW ZERO. A HALF CHARGED BATTERY FREEZES AT 31 DEGREES BELOW ZERO. A DISCHARGED BATTERY FREEZES AT 10 DEGREES BELOW ZERO.





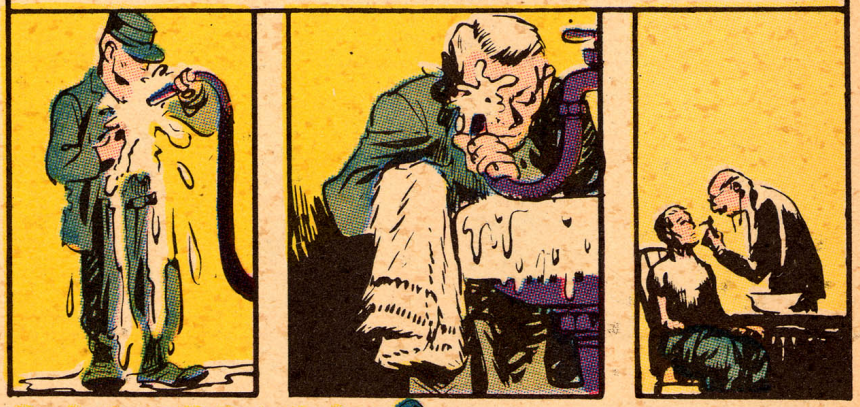
HOW TO HANDLE SPILLED ACID

1 WASH THE STUFF RIGHT OFF... USE PLENTY OF WATER... WEAR RUBBER GLOVES.

2 THEN NEUTRALIZE THE ACID WITH SOME BAKING SODA DISSOLVED WITH WATER.

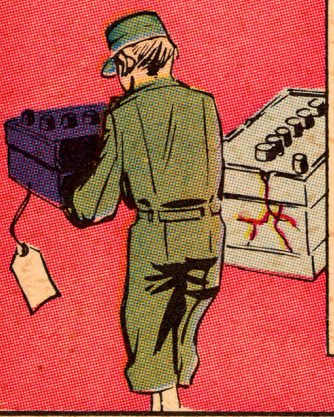
ACID ON CLOTHES?
T. S. . .
CHANGE 'EM

ACID ON BODY OR IN EYES?
WASH OFF WITH PLENTY OF WATER
AND LET A DOCTOR LOOK YOU OVER



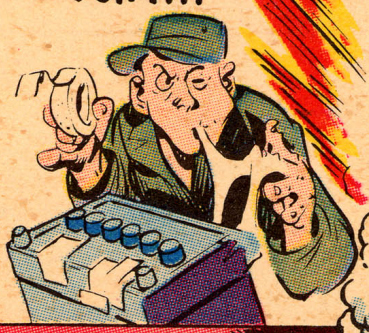
LEAKING BATTERIES?

GET A NEW ONE

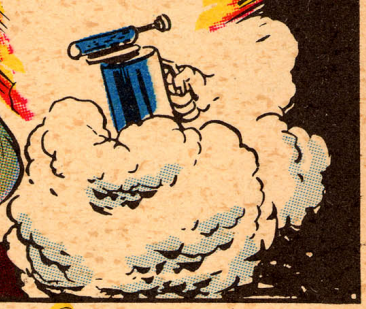


LEAKS ARE CAUSED BY A POROUS OR CRACKED CASE

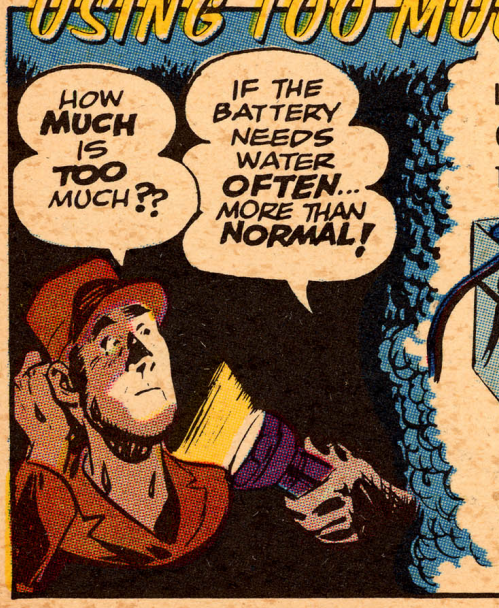
DON'T...



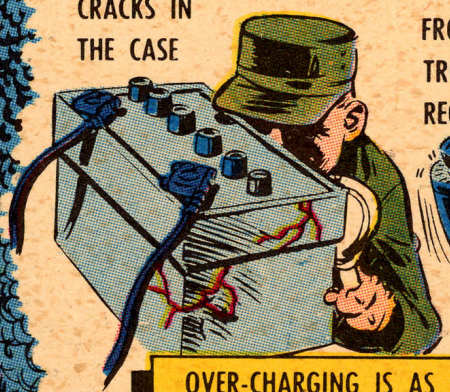
DON'T USE THIS



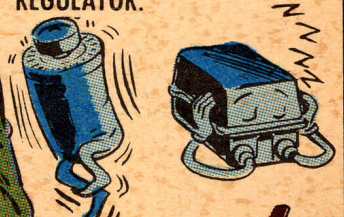
USING TOO MUCH WATER?



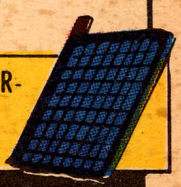
LOOK FOR CRACKS IN THE CASE



OR...MAYBE YOU'RE GETTING TOO MUCH CHARGE FROM THE GENERATOR...THE TROUBLE'S PROBABLY IN THE REGULATOR.

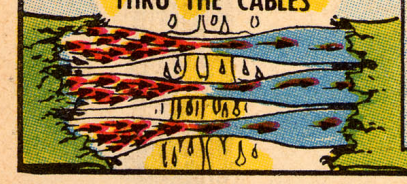


OVER-CHARGING IS AS BAD AS UNDER-CHARGING . . . MAYBE WORSE—FOR IT CORRODES PLATE GRIDS . . .

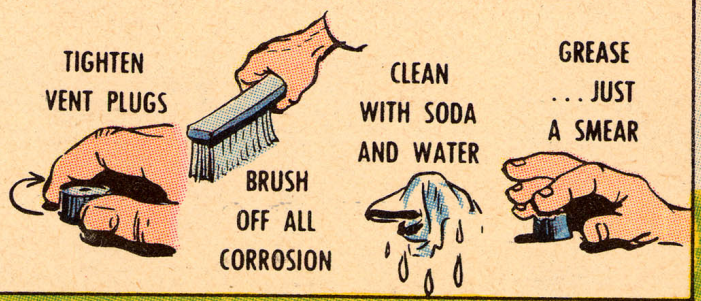


CORROSION AND HOW TO STOP IT... (THIS COULD BE SERIOUS)

ACID EATS THRU THE CABLE AND STARTS ETCHING AWAY THE COPPER ...RESULT... DOGGONE LITTLE ENERGY GETS THRU THE CABLES



ON METAL PARTS OF YOUR BATTERIES... Y'PREVENT ANY CORROSION BY COATING PARTS WITH GREASE



NOW, LET'S TRY'ER... T'MAKE SURE THE NEW BATTERIES ARE SET IN RIGHT!

...ER... JUST A SECOND.... YOU'VE BEEN SO HELPFUL... HOW ABOUT A DATE... SAY DINNER AT THE COLONY... AND A SHOW AFTER... AND...

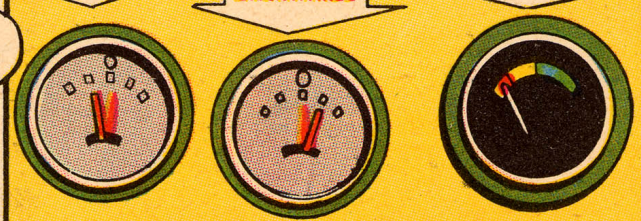
WHY SURE ...MIGHTY NICE OF YOU...

...NOW IF YOU'LL TURN ON YOUR LIGHTS AND CHECK THE AMMETER.

IF YOU GET DISCHARGE ... OK.

IF YOU GET CHARGE... YOU'RE IN BACKWARDS

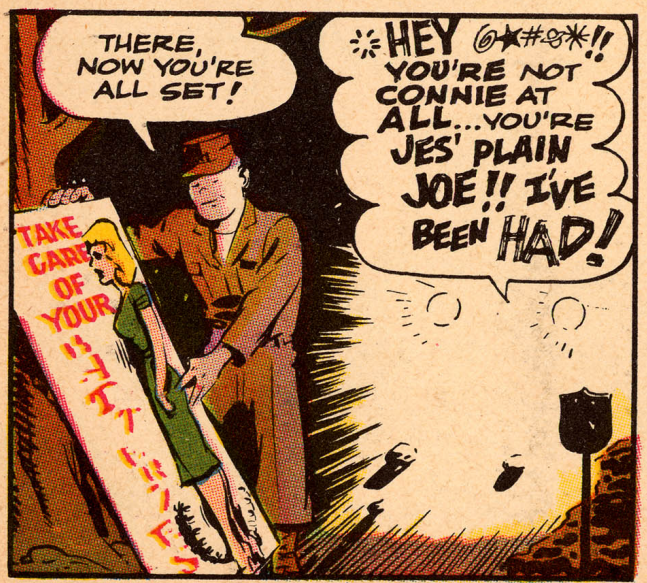
IF YOU HAVE A VOLTMETER ... IT SHOULD BE IN RED WITH IGNITION ON



BETTER SWITCH IT AROUND AFORE YOU GET A CASE OF REVERSE POLARITY

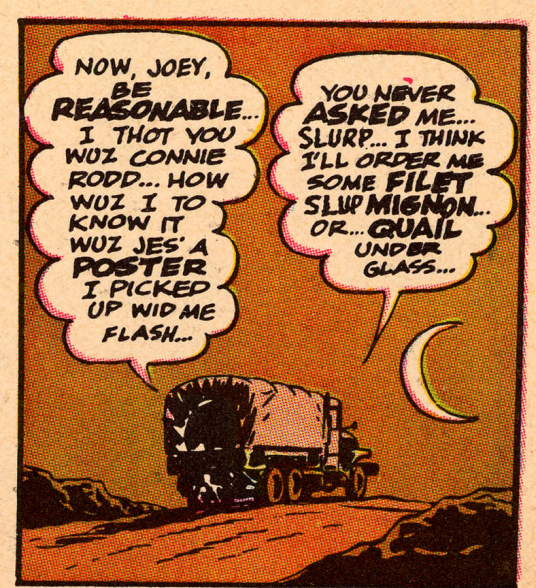
THERE, NOW YOU'RE ALL SET!

HEY @★#@*!! YOU'RE NOT CONNIE AT ALL... YOU'RE JES' PLAIN JOE!! I'VE BEEN HAD!

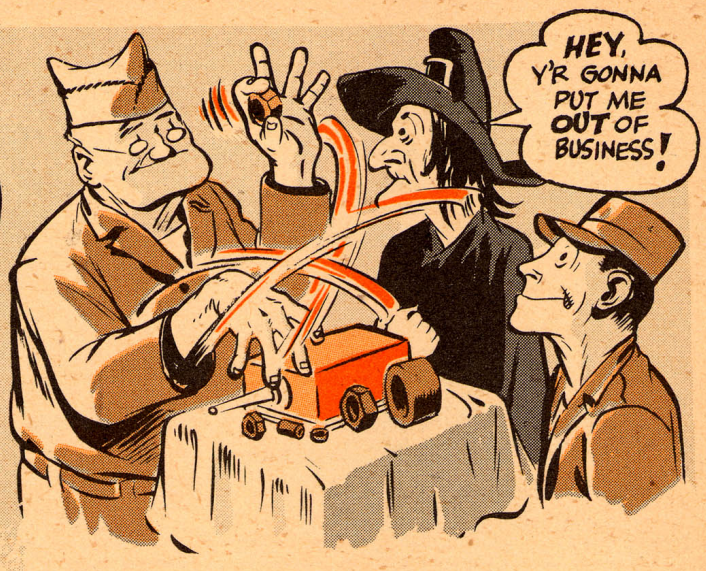


NOW, JOEY, BE REASONABLE... I THOT YOU WUZ CONNIE RODD... HOW WUZ I TO KNOW IT WUZ JES' A POSTER I PICKED UP WID ME FLASH...

YOU NEVER ASKED ME.... SLURP... I THINK I'LL ORDER ME SOME FILET SLUP MIGNON... OR... QUAIL UNDER GLASS...



SGT HALF-MAST McCANICK'S ANSWER DEPT.

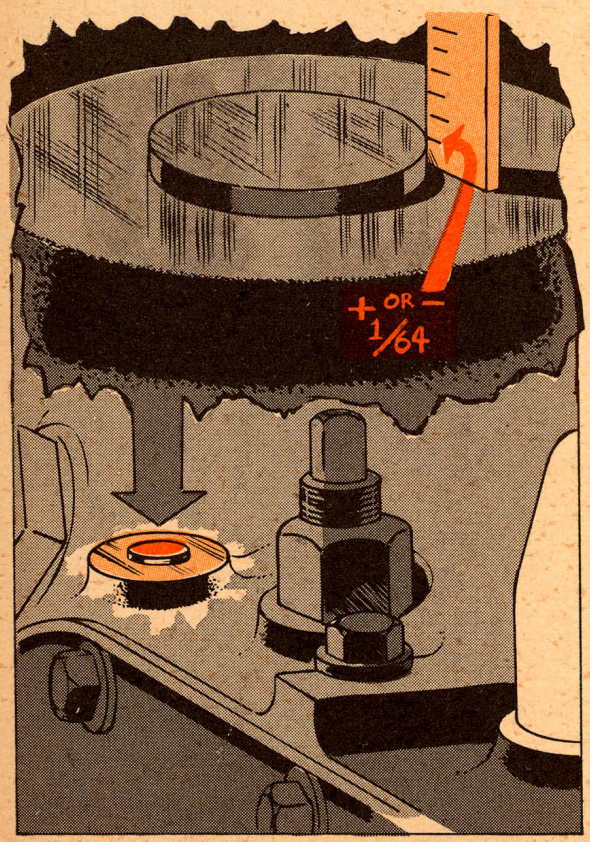


FRONT BAND ADJUSTMENT PIN

Dear Half-Mast,

I would like to know if it is possible to make the adjustment of the front band on the Hydra-Matic trucks and always get the indicator pin ***exactly*** *flush with the machined surface like it says in TM 9-8024, page 352, para 201. Or if not, what tolerance can I have and know the transmission will work OK?*

SFC R. H. R.



Dear Sgt R. H. R.,

I'm afraid you'll have to check with Ordnance any time you can't get that pin flush with the machined surface. The + or − 1/64-in is all the tolerance you can have.

It seems that it is sometimes possible for the pin to stick up quite a ways and the transmission will still work. But, you're exceeding the wear limits, and the cost of eventual repairs is likely to be far higher than if you send her to the shop the first time you find you can't get the pin down flush. Some few pins got cut too long, but Ordnance is the only place it can be checked.

Half-Mast

SET BACK

Dear Half-Mast,

Got a problem with radio equipment on our M48 tanks. As the set (AN/GRC-3) is now installed on the mount, the radio guard interferes with the channel selector knobs. What're the possibilities of mounting the set a little farther to the rear to give more clearance?

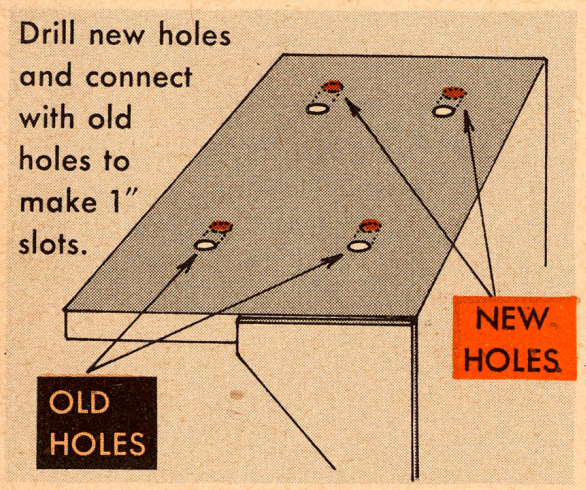
SFC T. A.

Dear SFC T. A.,

Pretty good, I'd say.

On later M48's this was done at the factory. The mounting holes were changed to 7/16 x 1-in slots.

You can get the same result on your early 48's by merely drilling a new set of holes behind the original holes. Then interconnect 'em to form 1-in slots.

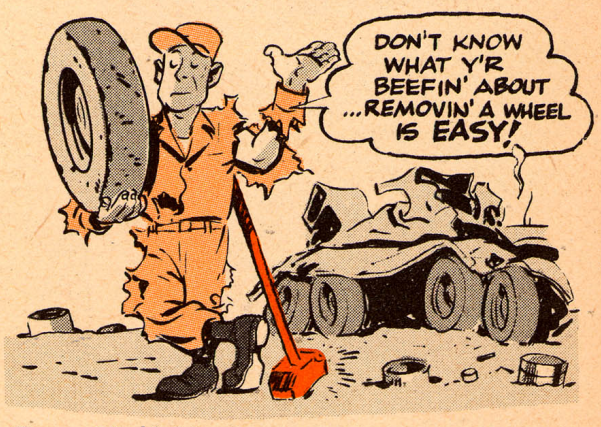


That's about as far as you can move the set back without bumping against the turret casting, or interfering with other radio equipment.

But that much extra clearance will let even a pudgy paw get at those knobs.

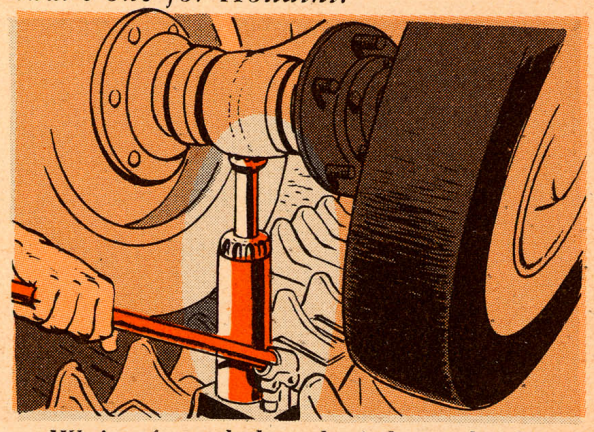
Half-Mast

OTTER TAKE CARE



Dear Half-Mast,

The manual procedure (TM 9-772A) for removing road wheels on the M76 amphibious cargo carrier works fine for the outside wheels. But did you ever try taking an ***inside*** *wheel off the Otter, using nothing but a lifting block? Man, that's one for Houdini.*

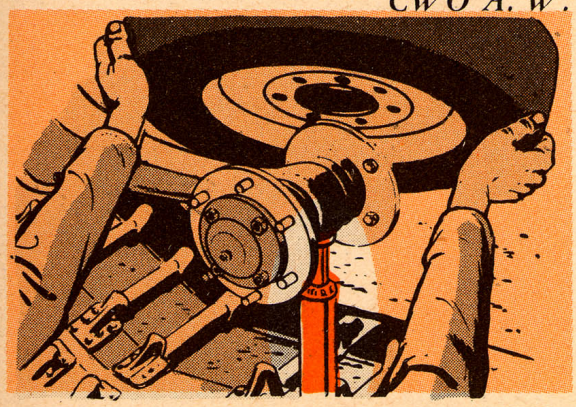


We've found that the job can be done by using a hydraulic jack—one like you find on the 2½-ton trucks in any motor pool. Just jack up the arm and remove the wheels—lowering the arm (with the jack) enough to let you pull the inside wheel out over it.

There's just one drawback to this method. The way the jack rides the track and holds the arm, it's not too stable—and takes a lot of care and steady hands to do it safely.

Is there any tool available that'll do a better, safer job?

CWO A. W.



Dear Mister A. W.,

No. Not yet, anyway. But there is a wheel arm lifter for the Otter being worked up. You'll be getting the word when it's ready.

Meantime, the jack'll have to do the job. And, like you say, ya **otter** take a heap of care to handle 'em safe as possible.

Half-Mast

SHAKERS

Dear Half-Mast,

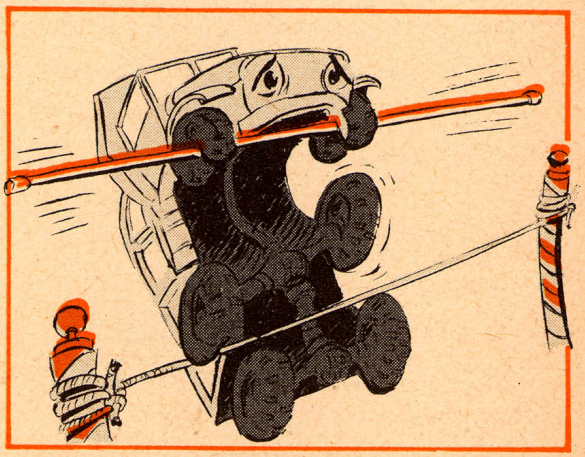
Can you tell us National Guard maintenance center guys what we can do about our M215 GMC dump trucks?? They are shimmying like blazes. The shimmy comes in at about 40-MPH when we're running empty, and at much lower speeds when we're loaded.

Naturally, we've checked for tie-rod and drag-link wear, knuckle-bearing and steering-sector adjustment, etc. But since the truck mileage runs less than 4000, we didn't find much.

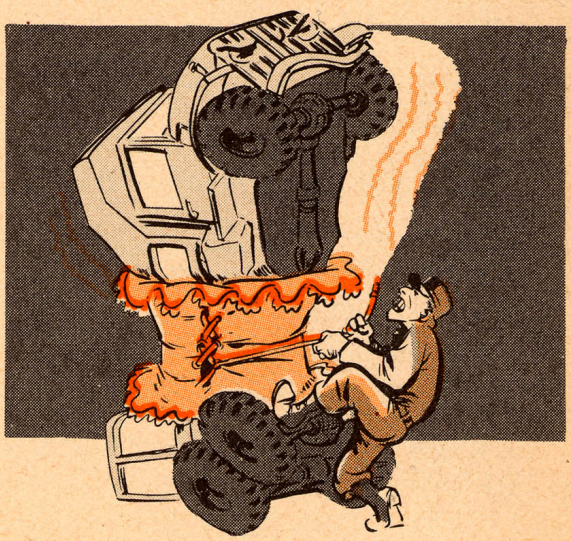
CWO E. J. H.

Dear Mister E. J. H.,

How about the new MWO's for that front end? Have you applied MWO Ord G-749-W22 (8 Apr 55), marked **Urgent**, and MWO Ord G749-W32 (12 Dec 55)?



The first one puts a stabilizer bar on the truck.



The second calls for intensive reinforcement of the whole frame, and the part that concerns your steering is the beefing up of the front cross members and spring hangers. I think you'll find that these two modifications will lick your problem.

Half-Mast

Bore Cleaning Clues—

BROTHER, IT'S FREEZING OUTSIDE

Wearing winter underwear means more to artillery and AAA men than itching in a hot room. Freezing temperatures call for greater care and speed in cleaning gun bores.

Good old bore cleaner will do the job—until the mercury hits -20° F. It sludges under that temperature, and it's nix on adding antifreeze because you can't dilute bore cleaner. So below -20° F you gotta use a water cleaning solution.

Here's a chart on how much alcohol or antifreeze compound to use in your water cleaning solution at sub-freezing temperatures. Put in this many quarts of antifreeze agents for every gallon of solution used at the Fahrenheit temperatures shown at left. The range includes temps up to +20° F in case there's no bore cleaner at hand and it's necessary to use a water cleaning solution.

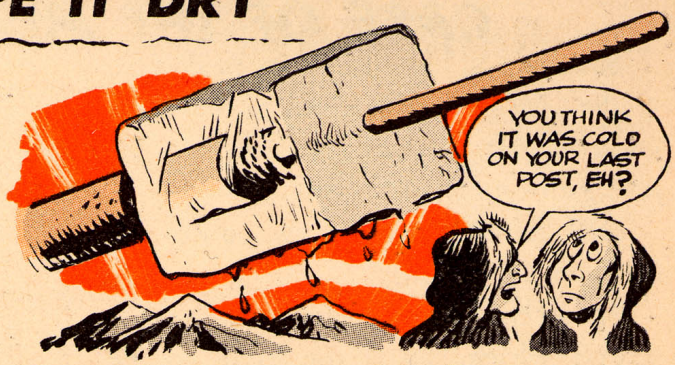
	QTS PER GAL OF WATER	
TEMPERATURE	ALCOHOL	ANTIFREEZE
20°	1	1
10°	2	1½
0°	2½	2
-15°	4	3
-30°	6	4
-40°	11	5

The big deal on cleaning a bore in sub-freezing weather is speed. Once you've swabbed until all the residue and crud are cleaned out, hurry to wipe it dry and get some PL Special on to prevent rust and corrosion.

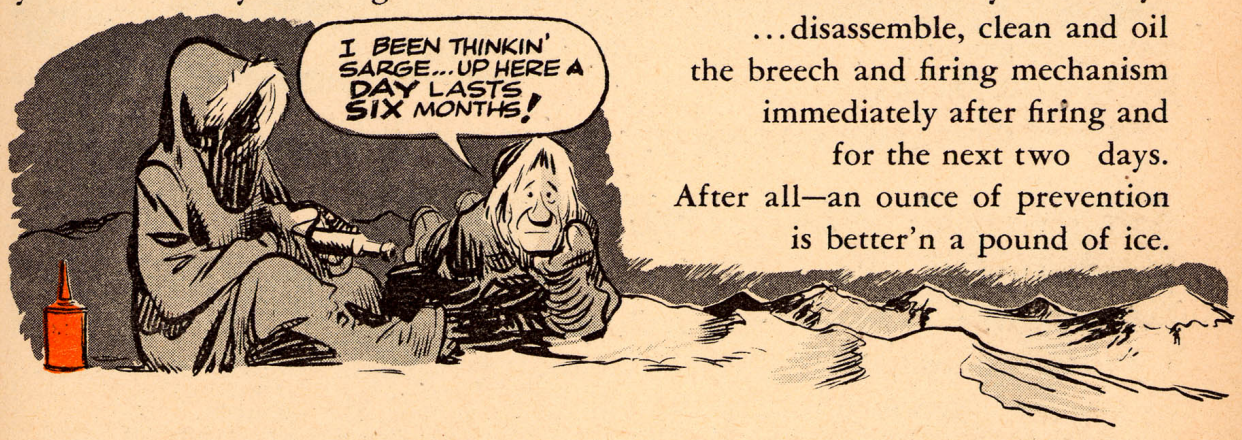
If you're in a spot where you can't measure antifreeze agents too accurately, make this a general rule: It's better to use too much than too little.

WIPE IT DRY

Have you been frosted because the breech mechanism on your artillery piece freezes after swabbing during frigid weather? There's no trouble stopping the freeze-up, or at least cutting down the chances of its happening.



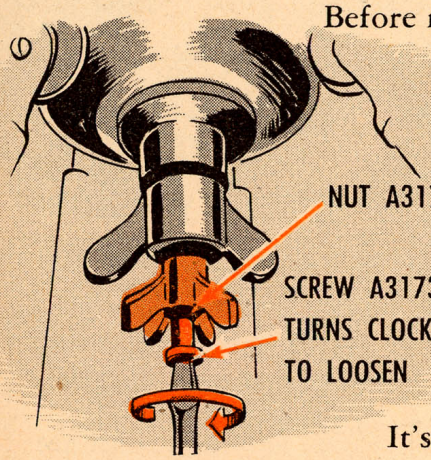
All you gotta do is wipe the chamber and breech mechanism dry **as soon as** you've finished your firing mission. You also wanna remember what your LO says ...disassemble, clean and oil the breech and firing mechanism immediately after firing and for the next two days. After all—an ounce of prevention is better'n a pound of ice.



UNSCREW IT RIGHT

Tankers and field artillery guys who remove the M48 telescope mount from tripod M10 or M17 know that screw A317311 makes it a bassackwards deal.

When the mount is taken off a tripod, you've got to remove spindle B181029, which holds the mount on the tripod head.



Before removing the spindle, nut **A317317** comes off, and before that, screw **A317311**, which holds on the nut. And there's where the rub comes in. Some guys turn that little screw counter-clockwise with their fingers to get it out—and it won't give. So they get a wrench to put on the pressure—and the screw head shears off because screw **A317311** has a **left-hand** thread.

It's one of the few left-hand threads you'll run across, so watch out for it. It's bassackwards from an ordinary screw. Turn a screw with a left-hand thread counter-clockwise to tighten and clockwise to loosen.

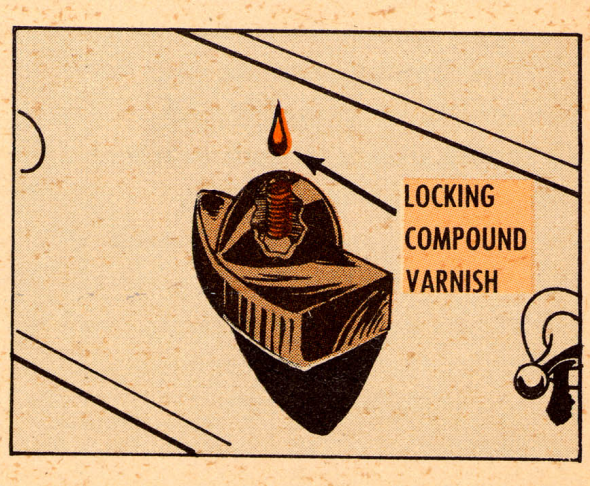
T46E1 Range Finder

CASE OF THE MISSING KNOB

Soon as you hand this copy of PS over to the next guy, take a look at the stereo control knob, T46E1 range finder, 90-mm gun on the M48 tank.

Still there? Good on you, 'cause a lot of them are missing.

To keep yours there, look at the screws which fasten the knob to the rheostat shaft. They should be screwed in tight and then secured with a drop of locking compound (Varnish, Eng Stock No. 52-8610.500.003).



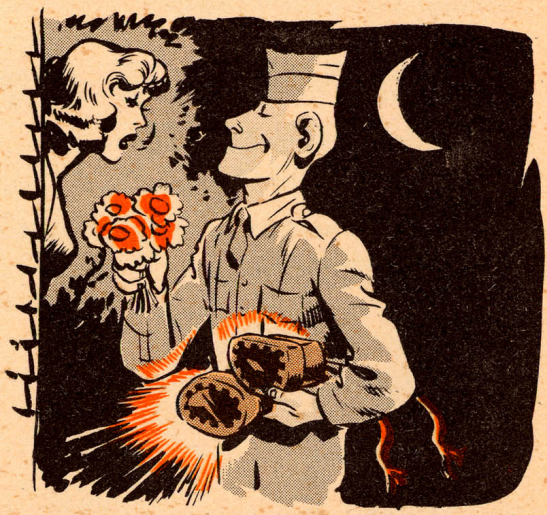
Some of those knobs are being lost because of no locking compound. Check yours.

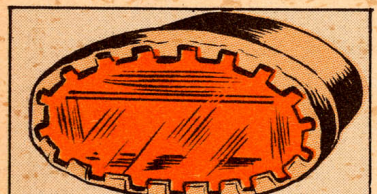
BY THE LIGHT...

You can take a spoon along with you when you go out in the moonlight... and leave the tools back in the supply room.

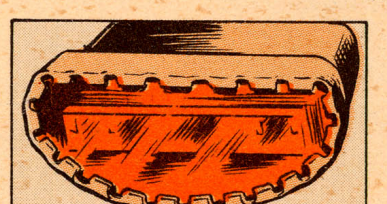
There's no need for the tools in the removal of stoplight and taillight assemblies on the bogies used with the 90-mm AA guns and M2 mounts.

Some guns have been toted along the road, minus the light assemblies, which disappeared overnight. You know the story. The bulbs burn out and so the assemblies are changed. Someone gets your assembly and you're left holding an empty bogie bar. That's all changed now. The next supply manual will authorize the drawing of the light units that make up the assembly. While waiting for the manual, you can get the light (bulb) units under these numbers:

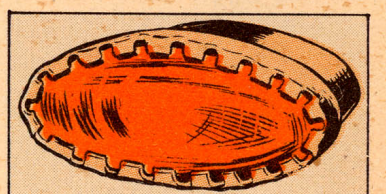




Blackout taillight—
H004-0504423



Blackout taillight—
H004-0504420



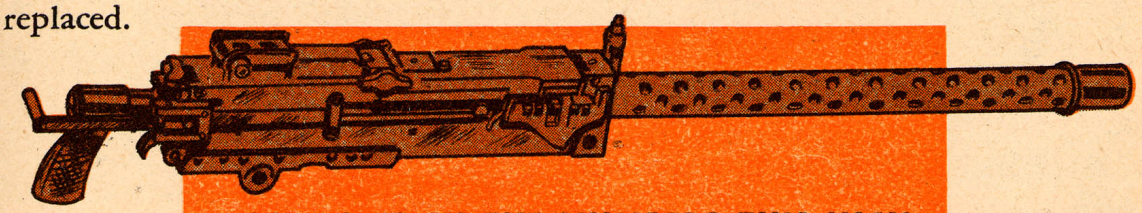
Tail light and stoplight
unit—H004-0504417

BETTER TO BE SAFE

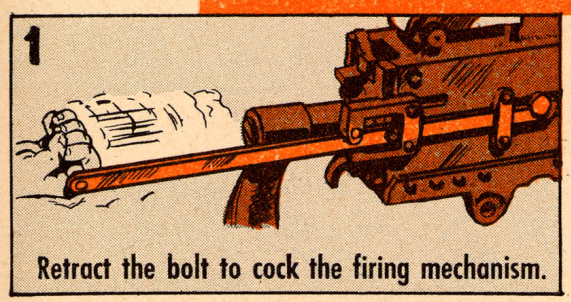
How's your tank's .30-cal M37 machine gun been acting lately? Have you been able to fire the gun even with the safety on?

Your trouble may be a tolerance stack-up on parts like the sear, trigger and back plate. You know, a little bit here, a little bit there—all add up to too much. If these works aren't matched just right, the top plate will be lifted enough to throw the safety out of whack.

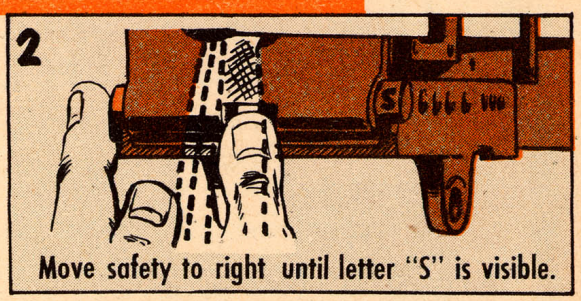
It's easy enough, and a smart move, to run a test before loading the piece. You should also run the test whenever the back plate, back plate latch or trigger is replaced.



YOU DO IT BY THE NUMBERS THIS WAY:

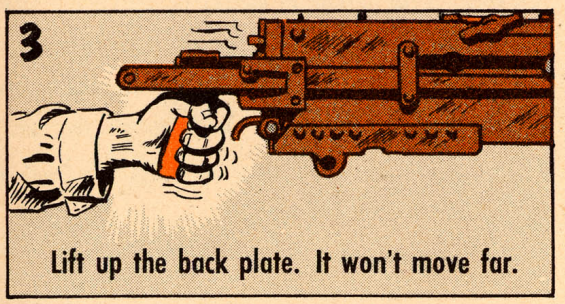


Retract the bolt to cock the firing mechanism.

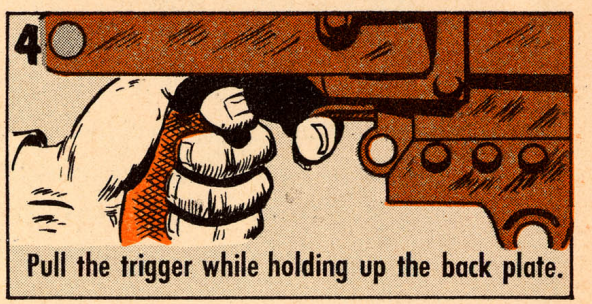


Move safety to right until letter "S" is visible.

You've done the first two things lotsa times, probably in your sleep. Next...



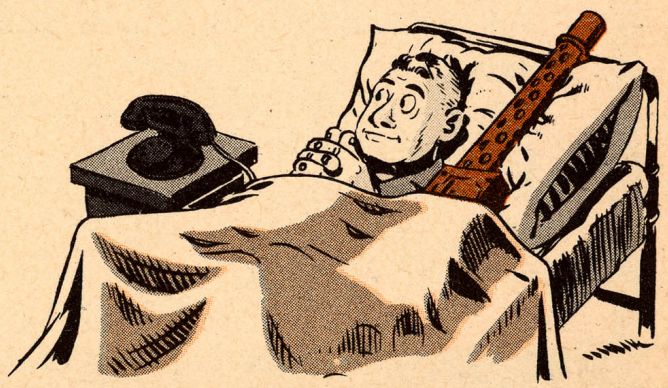
Lift up the back plate. It won't move far.



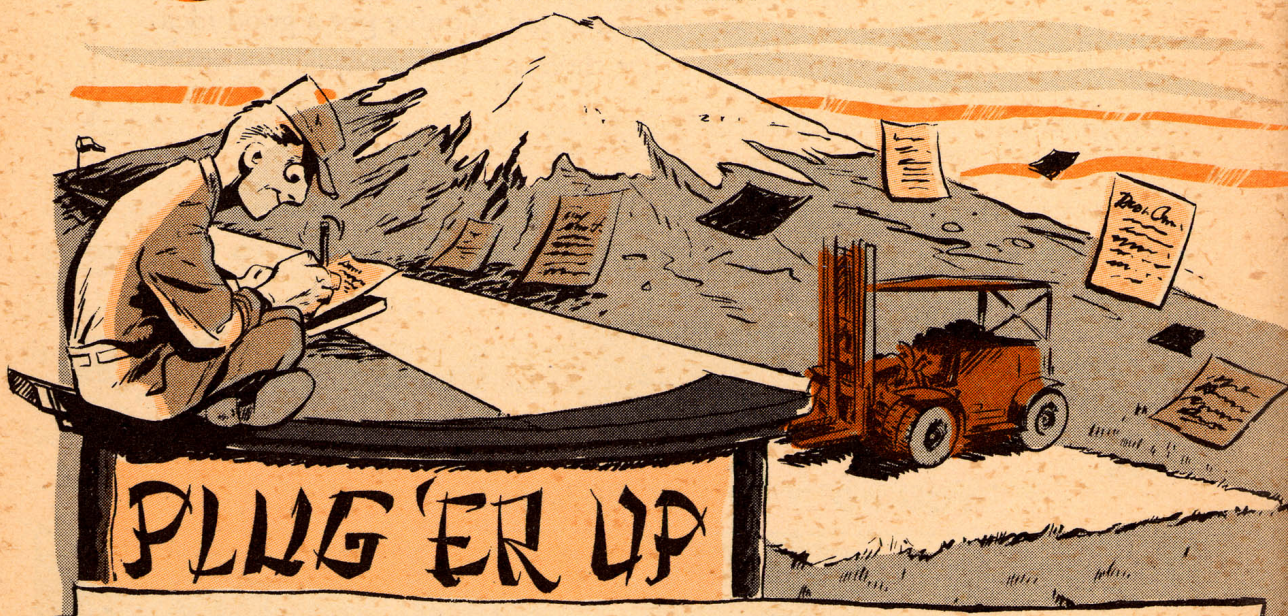
Pull the trigger while holding up the back plate.

The trigger shouldn't have released the firing mechanism. If it did, replace the weapon with a gun that does pass the test, but fast.

Hang on to the gun that isn't working right. You'll soon get word on what to do with it.



QUARTERMASTER



PLUG 'ER UP

Dear Connie,

Here in Japan, we've been having a little trouble with oil leaking from the transmission case on the Clark Model 45 Planeloader. The leak seems to be where the transmission case and clutch housing join together. All you need to do to stop the leak is replace the transmission plug.

But you know how lazy some guys get. The plug is hard to get out—all because the snap ring (FSN 5340-164-2133) around the plug can't be removed without a lot of trouble. As a result, some men never replace the plugs. They try and keep it from leaking by coating the plug with permatex. That still doesn't stop the leak completely, and we've already had a couple of burned out transmissions.

If we could get the snap ring out, removing and replacing the plug would be easy. The outer part of the transmission case has only a 1/16-in cast iron thickness. When some men use a screw driver and hammer away at the snap ring, they sometimes break off the ring groove on the transmission case. Those cases cost too much to have to send to salvage.

What we need is a snap ring with holes in each end. Then, when we want to remove the ring, we could insert sturdy pieces of wire in the holes, give it a squeeze and pull the ring out with no trouble. After that, getting to the plug would only be a formality. What do you think?

PFC N. S.

Dear PFC N. S.,

There's nothing wrong with your thinking, lad. You've got a good idea and you'll probably be happy to know that there is such a snap ring—holes and all—in supply right now. Here's the correct nomenclature for it:

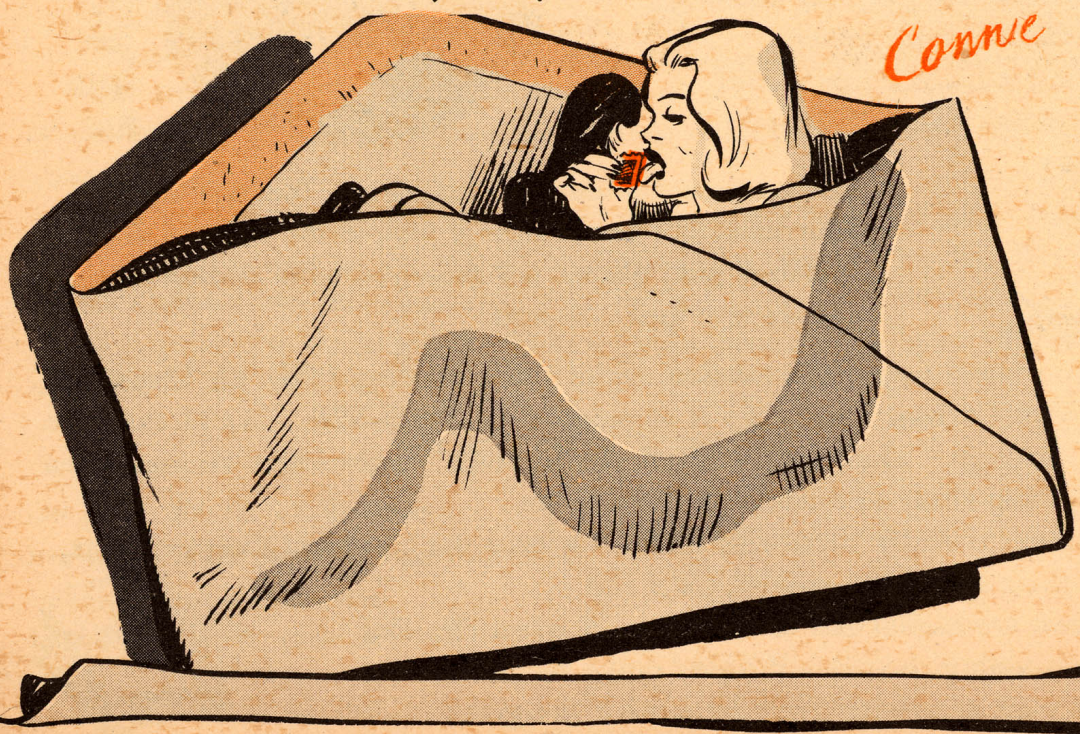
Ring, snap, retaining, internal, 2.440 housing diameter, 2.364 free diameter.

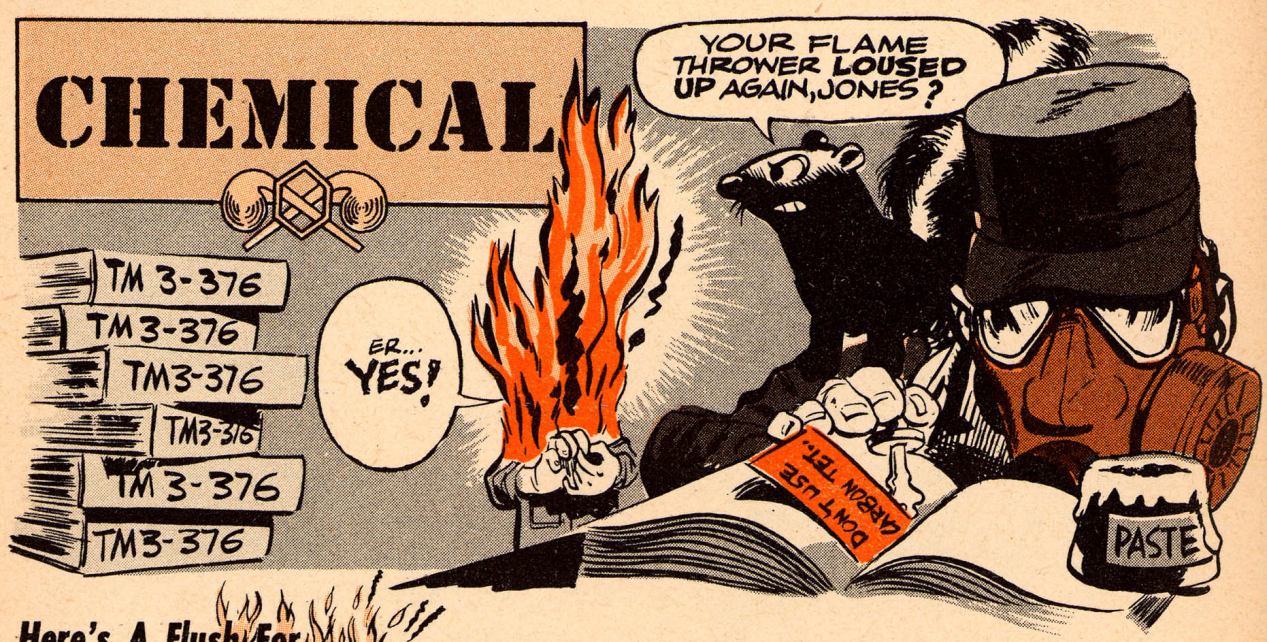
You'll find 'er listed under FSN 5340-281-6495. That's not all. This ring'll fit all these transmission cases listed below:

FSN 2520-164-2155, Case, used on MHE 59
FSN 2520-164-3477, Case, used on MHE 61
FSN 2520-358-8423, Case, used on MHE 116
FSN 2520-358-8446, Case, used on MHE 118 and MHE 142
FSN 2520-499-8825, Case, used on MHE 125 and MHE 150
FSN 2520-358-8495, Case, used on MHE 141, MHE 143 and MHE 149
FSN 2520-375-0575, Case, used on MHE 146 and MHE 151
FSN 2520-375-0587, Case, used on MHE 147
FSN 2520-217-9253, Case, used on MHE 148

In all cases, you'll find that the snap ring can be inserted in the 5/64-in deep ring groove without any trouble and you can seat it right.

Looks like you can solve two problems at once by getting this new ring. First off, it'll make the plug easy to get to. That, of course, will allow you to keep a close tab on the leaking oil. Also, you won't have to be salvaging those transmission cases every time you turn around.

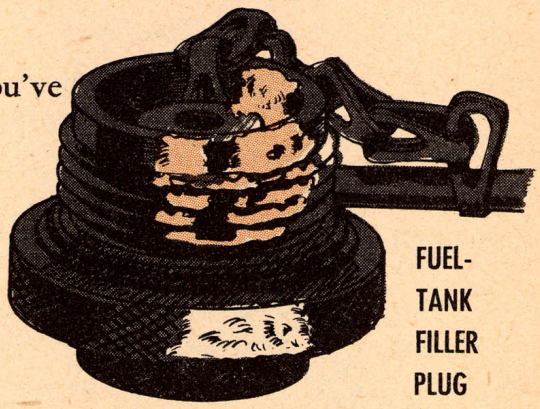




Here's A Flush For FLAME THROWER FUEL TANKS

When you flush the fuel tanks of your M2A1 portable flame thrower make sure you've got the **right kind** of cleaner. If you don't, you might end up with an injured weapon.

The cleaner for gargling those tanks is dry cleaning solvent. You'll find it listed on page 8 of SM 10-1-6800, dated 29 Sept 55.

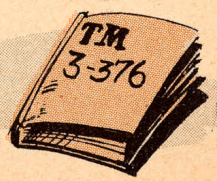


FUEL-TANK FILLER PLUG

Carbon tetrachloride's **NG** for this job. The stuff'll rust your tanks but good. Take a look at the messed-up fuel-tank plug above. It'll show you what carbon tet can do to a tank's innards.

So's you won't forget this caution, make a note reading **"Nix on Cleaning Tanks With Carbon Tet."** Clip it to page 50 of **TM 3-376**, "M2A1 Portable Flame Thrower." The note'll remind you to reach for the right cleaner when you're getting ready to freshen up those tanks.

Carbon tet is really unfriendly stuff. Not even the Chemical Corps experts, with all their special know-how, tools and equipment, are authorized to use the stuff when cleaning or reconditioning the flame thrower tanks. So please keep the stuff away—far away from your fire-gun.



Decon Dividend

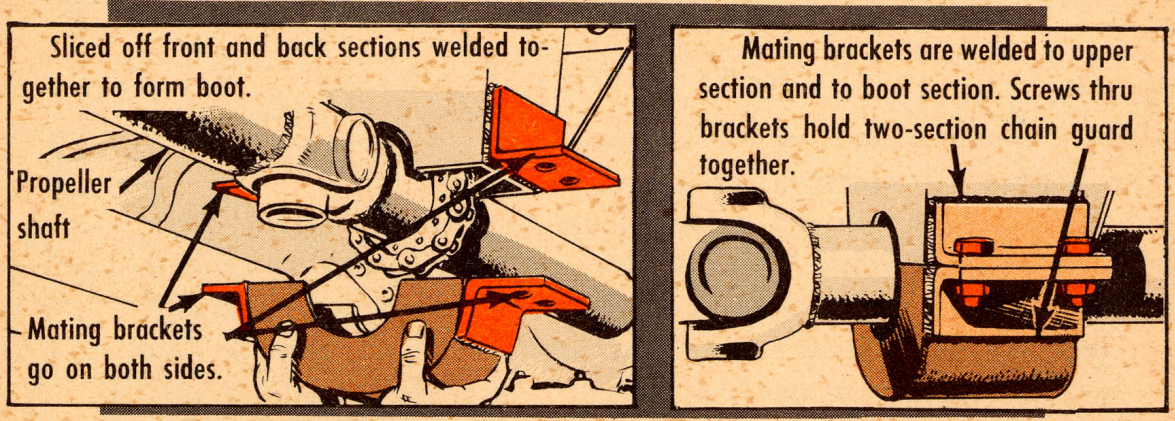
From now on you're going to rest easier when it comes to removing the chain guard from your truck mounted Decon (M3A1's and M3A2's).

A minor change has done away with all that wrestling with the propeller shaft when you have to get at the Decon's pump chain and sprocket. You'll now be able to remove the chain guard in a matter of minutes instead of hours . . . and without even nudging the prop shaft.

The time-and-labor-saving fix slices off the bottom end of the chain guard. The cut is made straight across at the center of the prop shaft hole.

New ***M3A3 Decons*** now come with the chain guard fix already applied. But a few early model M3A3's went to the field before the change was adopted. If you've got one of these M3A3's it's eligible for the fix, too.

Take a look at the drawing and see how the front and back pieces of the section that's cut off are welded face-to-face to form a one-piece boot.



Small brackets are welded to the outsides of both the upper and lower sections of the chain guard. Screws thru the mating brackets lock the two-piece chain guard in place.

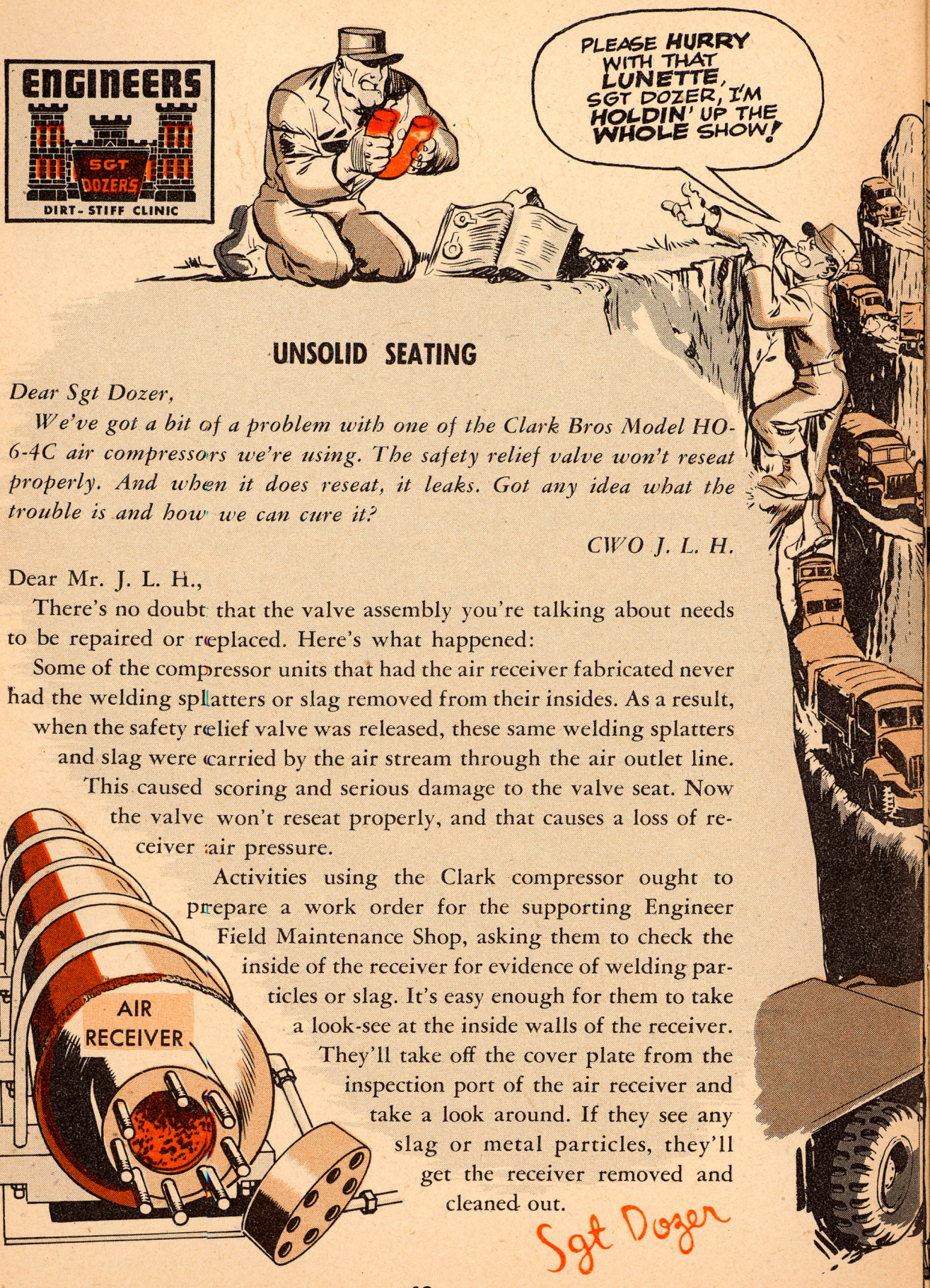
It's a real improvement. The pay-off comes every time you go to inspect the chain and sprocket, grease, repair or replace the chain. You simply work-off the four screws and there you are.

All you have to do to get the fix is let your field maintenance support outfit know your Decon needs it.

Do Connie a Favor

On page 29, PS 45, change the address on the envelope made up for a UER on a Chemical item to read like this:

Commanding General
Army Chemical Center
and Chemical Corps Material Command
Army Chemical Center, Maryland
ATTN: CMLAM-M-SM



UNSOLID SEATING

Dear Sgt Dozer,

We've got a bit of a problem with one of the Clark Bros Model HO-6-4C air compressors we're using. The safety relief valve won't reseat properly. And when it does reseat, it leaks. Got any idea what the trouble is and how we can cure it?

CWO J. L. H.

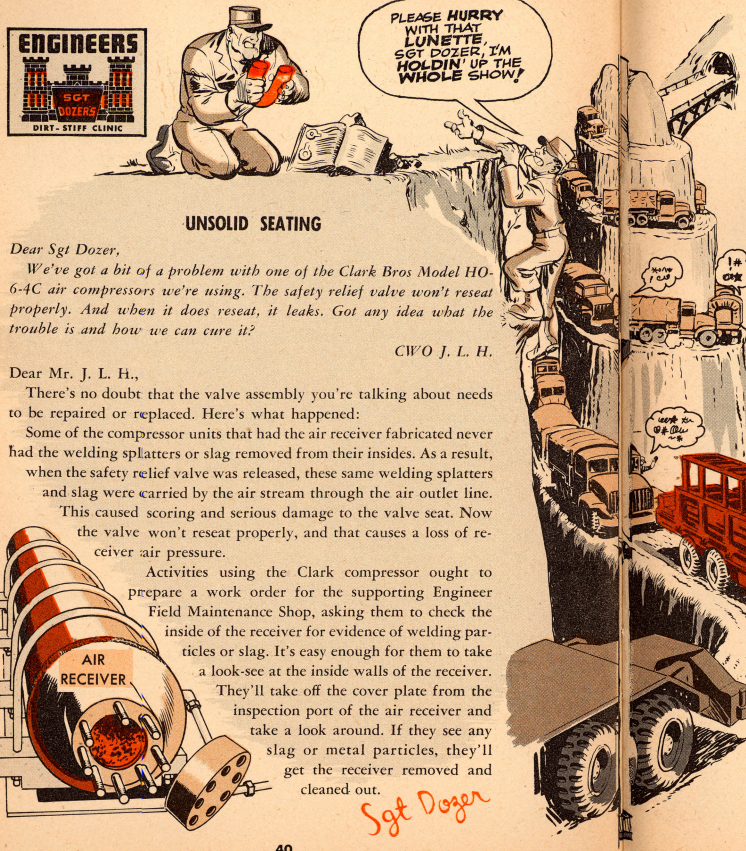
Dear Mr. J. L. H.,

There's no doubt that the valve assembly you're talking about needs to be repaired or replaced. Here's what happened:

Some of the compressor units that had the air receiver fabricated never had the welding splatters or slag removed from their insides. As a result, when the safety relief valve was released, these same welding splatters and slag were carried by the air stream through the air outlet line. This caused scoring and serious damage to the valve seat. Now the valve won't reseat properly, and that causes a loss of receiver air pressure.

Activities using the Clark compressor ought to prepare a work order for the supporting Engineer Field Maintenance Shop, asking them to check the inside of the receiver for evidence of welding particles or slag. It's easy enough for them to take a look-see at the inside walls of the receiver. They'll take off the cover plate from the inspection port of the air receiver and take a look around. If they see any slag or metal particles, they'll get the receiver removed and cleaned out.

Sgt Dozer



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Dear Mr. J. L. H.,

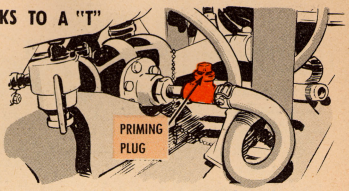
There's no doubt that the valve assembly you're talking about needs to be repaired or replaced. Here's what happened:

Some of the compressor units that had the air receiver fabricated never had the welding splatters or slag removed from their insides. As a result, when the safety relief valve was released, these same welding splatters and slag were carried by the air stream through the air outlet line. This caused scoring and serious damage to the valve seat. Now the valve won't reseat properly, and that causes a loss of receiver air pressure.

Activities using the Clark compressor ought to prepare a work order for the supporting Engineer Field Maintenance Shop, asking them to check the inside of the receiver for evidence of welding particles or slag. It's easy enough for them to take a look-see at the inside walls of the receiver. They'll take off the cover plate from the inspection port of the air receiver and take a look around. If they see any slag or metal particles, they'll get the receiver removed and cleaned out.

Sgt Dozer

WORKS TO A "T"



Dear Sgt Dozer,

We found a good solution to our problem of priming and lubricating the small centrifugal pumps we use for fertilizer and insecticide spraying. All we did was install a pipe "T" with a pipe plug in the branch opening in the pump's inlet line. The sketch shows the "T" installed on a Model WA 7 Pacific Marine Pumper. We can remove the plug and pour in water to prime the pump. And every so often, we run in a little oil to lubricate the inside of the pump.

Post Engineers
Yakima Firing Center, Wash.

Dear Yakima Post Engineers,

Sounds like a good idea to me, and thanks for the picture.

Sgt Dozer

SPARE LUNETTE

Dear Sgt Dozer,

We found ourselves in embarrassing situations a couple of times when we broke the lunette on the 10-ton attachment trailer that goes with our crane. When the lunette broke, the air brake safety system kept us from having a runaway, but we did tie up a narrow mountain pass for several hours until we got a new lunette. Believe me, this didn't make the local people too happy.

So now we make it a point to carry a spare lunette whenever we're operating off post. It saves a lot of time and serves as good insurance.

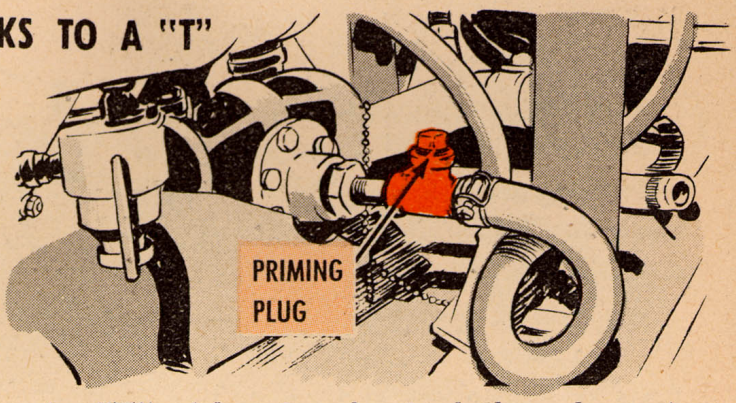
CWO E. B. S.
Ft. Lewis, Wash.

Dear CWO E. B. S.,

Can't see any reason why you shouldn't carry a spare lunette. Your unit's authorized an extra one, so you're just putting it to good use.

Sgt Dozer

WORKS TO A "T"



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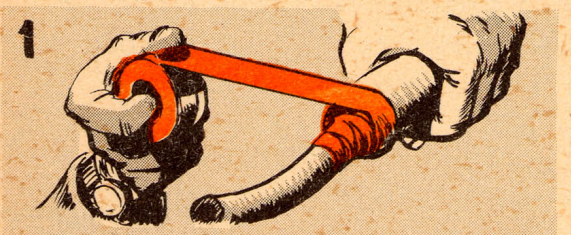
Sgt Dozer

A FIX FOR RIX

A little ingenuity and a housekeeper's suction will lead you to an easy way of removing the activated alumina from the drying towers on the 3500-PSI Rix capping compressor.

All you've gotta do is borrow the vacuum cleaner from the radar section (they've got one—a TOE item).



GET A PIECE OF 3/4-IN WATER OR AIR HOSE AND TAPE IT TO THE END OF THE VACUUM HOSE. THE VACUUM CLEANER HOSE ITSELF IS TOO BIG TO FIT THE FILLER OPENING.

USE A BLUNT ROD, WIRE OR EVEN A MODIFIED COAT HANGER BENT LIKE AN "L"

But treat 'er gently when you're poking and scraping. This'll keep the screen at the bottom of the tower from getting damaged.

Once you have the hose rigged, stick it in the opening and turn on the juice. Man, you'll really have drag!

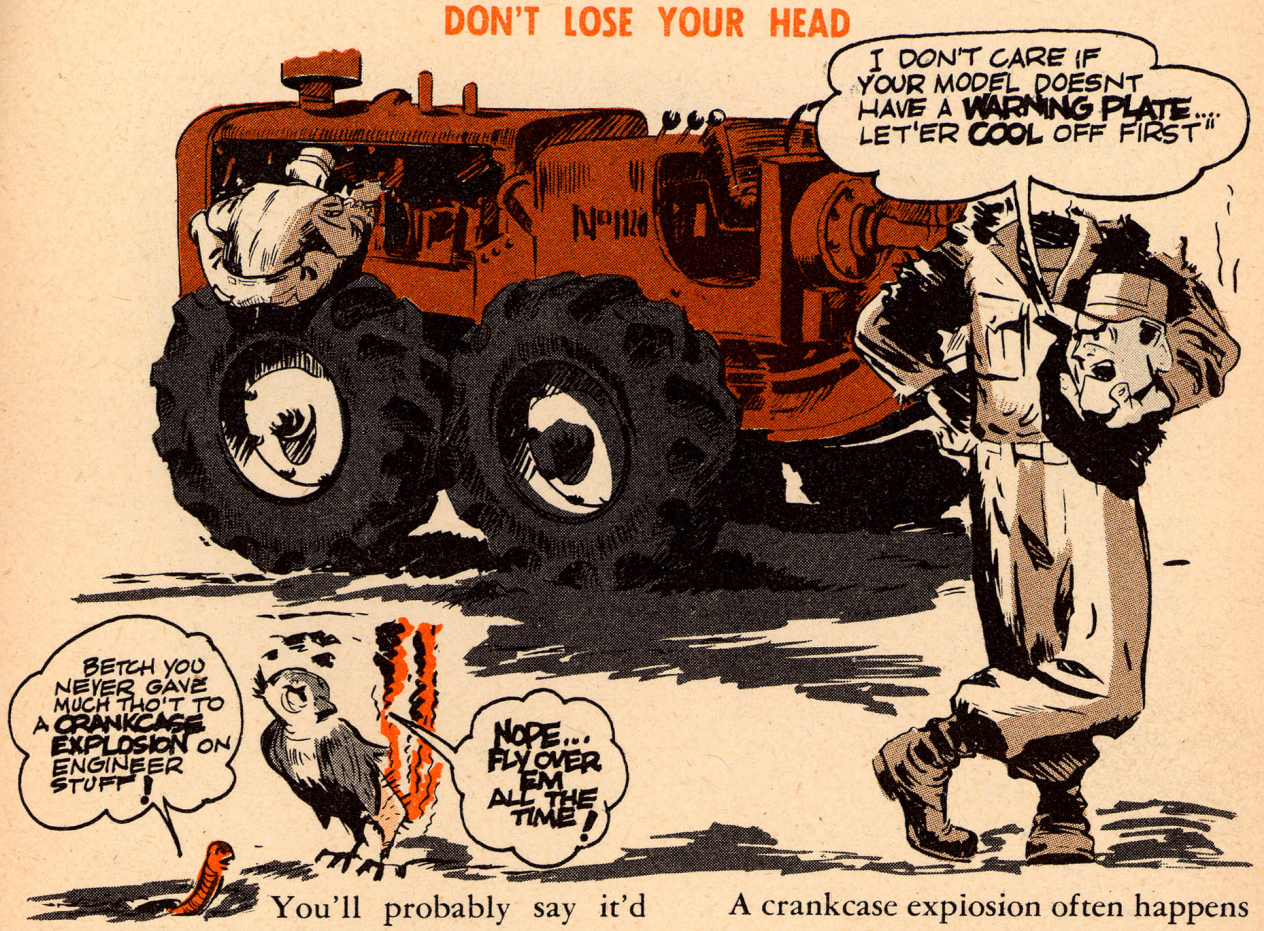
IT'S OIL RIGHT

If you've been stumped about what grades of oil to use in the force feed lubricator of the Rix capping compressor, you can rest easy from here on in. Here they are:

Where the temperature range is 90°F, or lower use Lubricating Oil, Grade 1065, (QM 140-0-02570-065) FSN 9150-255-3929. You'll find this 'un listed on page 6, Index No. 164 of SM-10-1-9100, Class 9150 (17 Nov 55).

Where the temperature is 90°F and above, your best bet is to use Lubricating Oil, Grade 1080, (QM 140-0-02582-008) FSN 9150-231-3929, listed in the same supply manual, only it's on page 6 of Index No. 67.

DON'T LOSE YOUR HEAD



You'll probably say it'd never happen—but it could. And you might not be kidding when you tell a guy not to lose his head.

It's true enough that crankcase explosions are rare. There's hardly one chance in a thousand that your crankcase'll blow up in your face. Even so, it might not be a bad idea to pull up a foot locker and listen to a couple of safety hints.

Most crankcase explosions happen when the crankcase cover's opened too soon after the equipment's shut down. It's still too hot in there to play it safe. If you hafta get into the crankcase on your equipment to correct a mechanical failure—wait about 15 minutes and give it a chance to cool off. You'll be avoiding that one chance in a thousand.

A crankcase expiosion often happens like this: A bearing, piston, bushing or some other part overheats due to some kind of seizure. And you want to locate the trouble in a hurry. That's where you should wait—if you're smart, that is. If you jerk that cover off too soon, the sudden rush of air'll mix with the crankcase vapors, combustion'll take place, and you'll have the crankcase blowing up right in your face. And it sure wouldn't be a joking matter to lose your head.

Some manufacturers now put warning plates on the larger engines to remind you to wait a few minutes before taking the cover off the crankcase after the engine's been shut down. On most models in use today, though, there isn't any warning plate. So remember, think before you act.

CONTRIBUTIONS

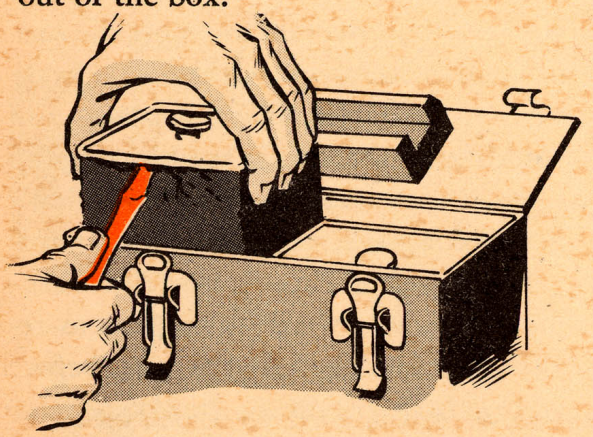
YOU CAN HANDLE IT

Dear Editor,

MWO Ord D38-W21 caused some headaches around here for awhile.

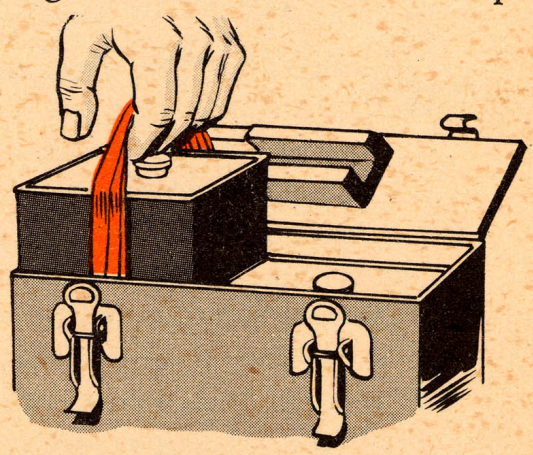
That's the one which put two small batteries in place of one big one in the container on the front bogie of the 90-mm antiaircraft gun.

The larger battery had a strap across the top which made it a snap to lift it out of the box.



The smaller ones have no handles. So we damaged more than one battery and container trying to remove the juice producers.

We did—until we came up with a fix. We got hold of some adhesive tape.



FSN-8135-269-8088 gets you a roll one inch wide by 60 yards long. Before putting in a new set of batteries, we wrapped the tape around 'em and formed a handle at the top. No more dirty looks when you tell someone to change the batteries.

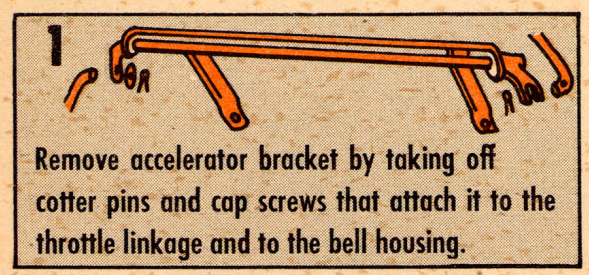
OCMT Joseph J. Bukowski
Fort Sheridan, Ill.

(Ed Note—Looks like a good temporary fix.)

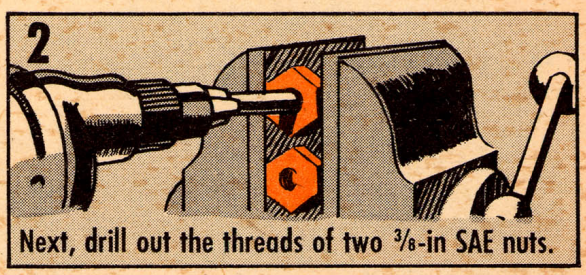
BRACKET FIX

Dear Editor,

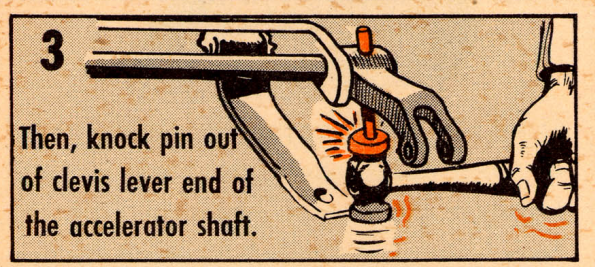
Here's a quick field fix for some of those Dodge trucks. It can be used when the accelerator bracket becomes worn out. You can't get a new bracket, because it's not in the Ord 7 or 8—only in the Ord 9. The fix cures sticky gas pedals and jerky acceleration by restoring the bearing surface between the throttle linkage and bracket.



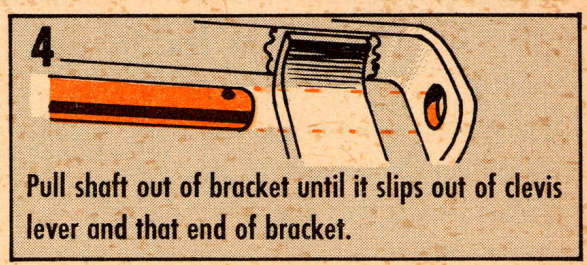
Remove accelerator bracket by taking off cotter pins and cap screws that attach it to the throttle linkage and to the bell housing.



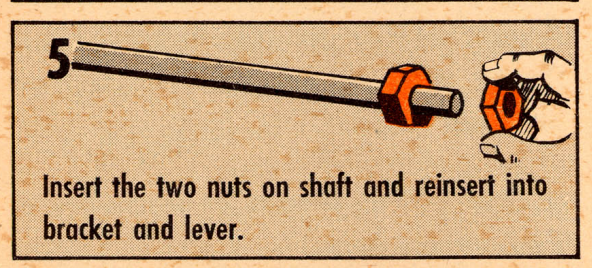
Next, drill out the threads of two 3/8-in SAE nuts.



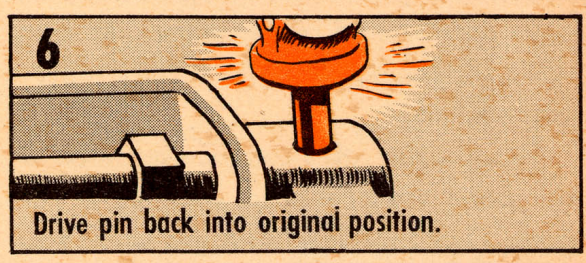
Then, knock pin out of clevis lever end of the accelerator shaft.



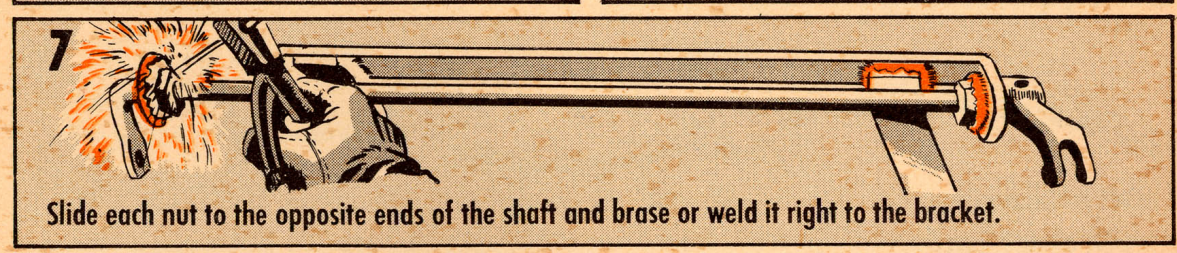
Pull shaft out of bracket until it slips out of clevis lever and that end of bracket.



Insert the two nuts on shaft and reinsert into bracket and lever.



Drive pin back into original position.



Slide each nut to the opposite ends of the shaft and braze or weld it right to the bracket.

By restoring the linkage bearing surface the bracket'll behave like a new one.

Mr. W. M. Fosbre
Mt. Rainier Ord. Depot, Wash.

(Ed Note—You're right about that bracket not being available to second echelon and to your Ordnance support outfits, but that's being changed. Next time a revision to Ord 8 SNL G741 hits the field, this bracket will be in it, which means it'll be available to your Ordnance support. As soon as you get a new one, get rid of your patched up bracket.)

WRESTLING HOODS

Dear Editor,

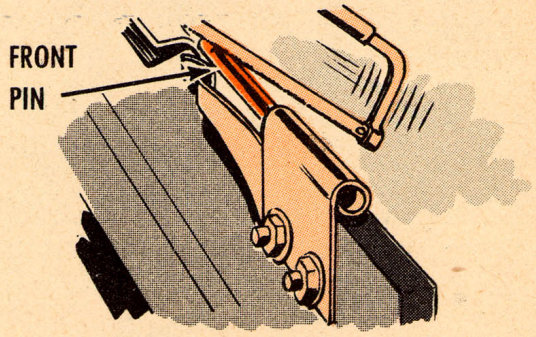
When you go to replace the hood-side-panels on the 2½-ton Reos and the 5-ton trucks you're in for one heck of a wrestling bout.

Getting the panel's locking-pins lined up and inserted into their respective holes just can't be done unless you've got two men on the job.

You can insert the first pin OK, but by the time you ease over to the one on the opposite end of the panel the first one's slipped out and you're back where you started.

Reason the job's tough, especially if the hood frame's been sprung, is the pins. They interfere with the space you have for working the panel in place. You can't line up both ends of the panel in the hood's frame at the same time. One end of the heavy panel hangs unsupported and pulls out the end you've locked unless someone's around to hold it in place.

We've eliminated this worrisome interference by cutting off ⅛ inch from the



front pin. Now we can line up the panel on both holes, insert the back pin and know it'll stay put while we lock the front end of the panel. Cutting the pin doesn't weaken its locking power, and the fix makes replacing these panels a one-man job.

MSgt R. A. A.

(Ed Note—You pinned 'er down, Sarge. You win the bout.)

Hold 'Er

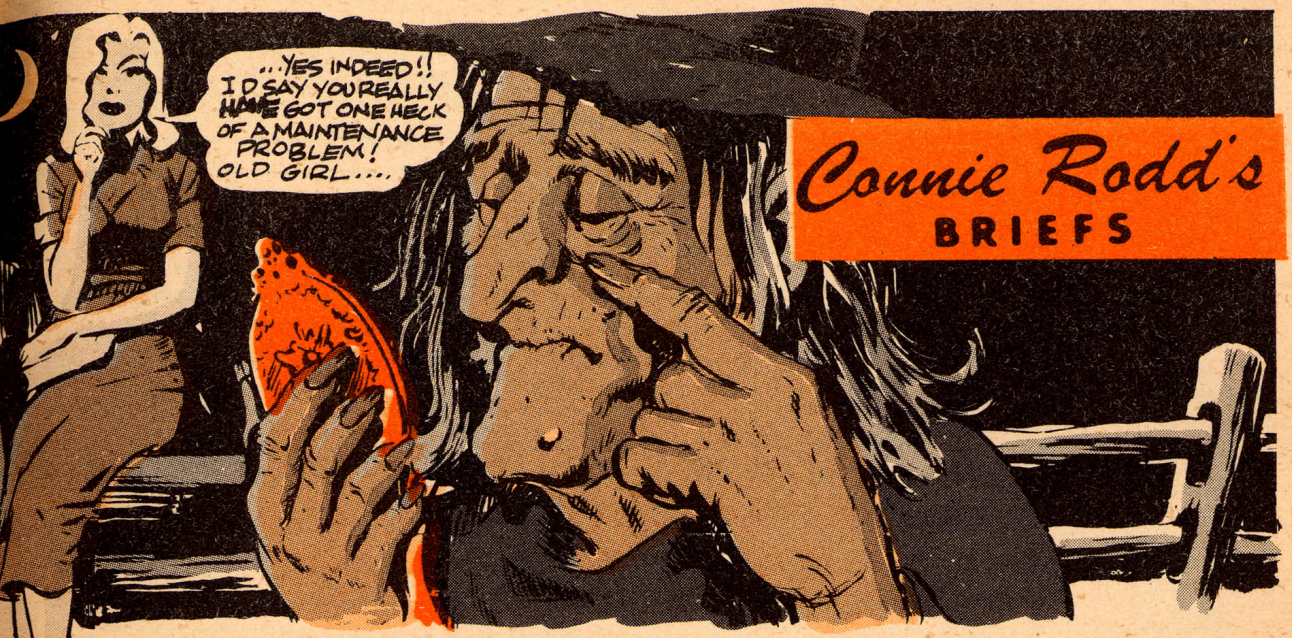
Dear Editor,

We've been having quite a bit of trouble with our trailer-light-cables dragging along the ground getting banged up when they become disconnected.

Our easy fix for this is to attach some safety wire or a light chain to both ends of the connections. And just tie the ends of the wire or chain to the truck and trailer. Now, when the connection wobbles loose, it won't drag.

PFC Bruce Kruger
Camp Irwin, Calif.

(Ed Note—Get a UER in if those cables keep coming loose. That way you'll soon get a permanent fix.)



Connie Rodd's BRIEFS

Wrong Number

This gal sure threw you a bum steer, back in PS 47 on Page 49. There is one and only one paint to use on acquisition antenna radomes. Because other paints cause radar reflection, the one used on radomes has to be non-metallic. Get it by ordering: Enamel, synthetic, semi-gloss, OD, (No. 2430, FS TT-C-595), FS TT-E-529 (Non-metallic), Eng Stock No. 52-3476.017.100.

On Page 49 in PS 47, just delete the reference to radomes. The paint you used to get under Ord Stock No. Y004-8017319 is being replaced by a paint under Eng Stock No. 52-3433.700.005; but it isn't used on the radomes—it's just used for ordinary OD painting around your systems, but not on your radomes.

Crystals

Use only IN23B crystals with Nike Vans and T/M33 FCS. IN23's aren't electrically interchangeable, so they're obsolete. Turn the IN23's in—according to regulations.

FCS Lubing

The acquisition antenna control unit on the Nike and M33 FCS has been getting OHA (MIL-0-5606) for a lube. But that stuff doesn't contain a rust inhibitor. Switch over to OHC (MIL-0-6083A) Stock No. 14-0-2832-51, which has a built-in rust fighter.

Lights Out

Whenever y'go changing a light bulb in your M48 tank's range finder—first make sure all those range finder light switches are OFF. Pulling a lamp assembly with the switches on may cause a short and shoot the resistors in your range finder control panel. Wouldn't want that, now . . . would we? (You'll likely see a range finder decal on the subject soon.)

INDEX PS 37-48

Your monthly reference guide to all subjects covered in the last 12 issues of PS Magazine

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